International Marketing and Purchasing of Industrial Goods

An Interaction Approach

By IMP Project Group

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Preface

This book presents a new approach to industrial marketing and purchasing based on a research project carried out in five European countries. The book, however, is not a complete and final report of the project. It will be followed by others.

The book ought to be of interest both to researchers and managers. It presents an alternative theoretical approach but is also highly empirical. The main part of it consists of descriptions and analyses of actual marketing and purchasing problems.

The research work has been made in collaboration between researchers in France, Italy, Sweden, West Germany, and Great Britain. In writing this book there has, however, been a certain division of labour. The three first chapters have mainly been written by Malcolm Cunningham, David Ford, Lars Hallén, Jan Johanson, and the editor. The authors to the company cases and the themes are named in the book. The introductions to the different sections of company cases and themes as well as the final chapter have been an editorial task. The whole volume has been checked by the English group from a language point of view.

A research project like this could not have been accomplished without support from many different persons and organizations. There are especially three groups that we would like to mention. Firstly, we have benefited from the encouragement and advice of our colleagues at the six different research institutes that have been involved. Secondly, we are deeply indebted to all the companies that have helped us with the data collection by giving us permission to interview their personnel. Thirdly, the project could never have been carried out without the support from the following foundations and organizations:

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As we will continue to work with the approach presented here we are very interested in getting in contact with researchers or managers involved in the same type of problems. Please, feel free to contact any of us.

Uppsala
January 1981

On the behalf of the IMP Project Group
HÅKAN HÅKANSSON

Chapter 1

Introduction

A CHALLENGE

This book is based on an approach which challenges the traditional ways of examining industrial marketing and purchasing. This approach can be outlined as follows:

Firstly, we challenge the concentration of the industrial buyer behaviour literature on a narrow analysis of a single discrete purchase. Instead we emphasize the importance of the *relationship* which exists between buyers and sellers in industrial markets. This relationship is often close. It may also be long term and involve a complex pattern of interaction between the two companies.

Secondly, we challenge the view of industrial marketing as the manipulation of the marketing mix variables in order to achieve a response from a generalized, and by implication passive market. We believe it necessary to examine the *interaction* between individual buying and selling firms where either firm may be taking the more active part in the transaction.

Thirdly, we challenge the view which implies an atomistic structure in industrial markets. This view assumes a large number of buyers and sellers, with ease and speed of change between different suppliers for each buyer and ease of market entry or exit for those suppliers. Instead, we stress the *stability of* industrial market structures, where those present as buyers or sellers know each other well and are aware of any movements in either the buying or selling market.

Fourthly, we challenge the separation which has occurred in analysing either the process of industrial purchasing *or* of industrial marketing. In contrast, we emphasize the similarity of the tasks of buyers and sellers in industrial markets. Both parties may be involved in a search to find a suitable buyer or seller, to prepare specifications of requirements or offerings and to manipulate or attempt to control the transaction process. This means that an understanding of industrial markets can only be achieved by the simultaneous analysis of both the buying and selling sides of relationships.

MARKETS FOR INDUSTRIAL GOODS

The market is the place where supply meets demand. Suppliers and customers meet, discuss and evaluate the conditions for exchange of goods and services, and exchanges take place. The conditions under which these exchanges occur,

especially that of price, are influenced by the characteristics and structure of the market, for example, the number and market power of suppliers and customers. Traditional economic analysis of markets presupposes that they are characterized by certain basic features;' firstly, there is an assumption of free movement in the market, and thus a customer will always buy where he obtains the best terms of exchange at that moment; similarly, the assumption is that suppliers will move to and from the market freely.' Thus, the market is portrayed as atomistic. Each unit in the market is free and independent to do as it wishes. Also, as a result of this free movement, the market is characterized by change, and stability is an exception. Underlying these two assumptions is the further assumption that there is little or no cost of transaction.' In other words, it is assumed that there are no costs in obtaining accurate information, or in negotiations, etc. One effect of this assumption is that production costs are considered central and that sellers can be simply represented by a production function. The traditional economic theory of the market has of course been subject to challenge and modification. However, it has influenced the models and principles used in marketing management. The basic model that most of the literature in marketing is built on is the marketing mix model. The key problems in marketing, according to that model, are:

(a) to allocate resources to different competitive means or mix elements,
(b) to design each mean as well as possible within the firm's resource limitations.

The market is often described in terms of response curves, each defined in relation to a certain 'marketing decision variable' or to the whole mix of a company. The assumption is of course that the market consists of many individual customers that are affected by the marketer's variables in accordance with a certain statistical distribution.

The same kind of influence can also be identified in the purchasing management literature. The focus here is largely on the management of a single purchase. This does not give full consideration to the factors which have contributed to the way this purchase takes place, or to the effects of this purchase on the subsequent dealings with the supplying company.'

Results from empirical studies into industrial markets indicate a quite different picture from that given above.' For example, relationships between sellers and customers are more often highly stable, than in a state of flux. Also, the long lead times before many industrial purchases take place are a time of complex interaction during which a relationship is established. Furthermore, changes in the composition of the customer and supplier markets are few and occur relatively slowly. Stability is, in other words, a clearer, stronger characteristic of industrial markets than is change.

These features can, of course, be seen as signs of inefficiency and if so it could be argued that the markets and the firms should be influenced in order to be made more efficient. However, there are many reasons for the development of such characteristics as stability and lasting relationships between suppliers and customers and these are now elaborated below.

BENEFITS OF STABILITY AND OBSTACLES TO CHANGE IN INDUSTRIAL MARKETS

We may firstly consider the purchasing firm and the benefits to it of stability and its unwillingness to change suppliers. It is possible to distinguish three different groups of explanatory factors:

Firstly, the firm faces problems of search and evaluation. A purchasing firm must be well informed about a potential supplier's technology, administration and commercial skills, and its trustworthiness. The costs of making a mistake in supplier selection by using a supplier which, for example, delivers an unsatisfactory product or allows delays in delivery, can be enormous. Thus the firm has to be very sure of an alternative before it is prepared to change suppliers. This means that in order to reduce the risk of incurring such costs the buying company will make supplier changes relatively rarely. When the buyer does decide to make a change then a number of purchasing procedures will be used. For example, they may visit the new supplier as part of an established vendor rating scheme. Furthermore, in the case of frequently purchased products the buyer will probably start with small orders. If the new supplier meets their requirements then they will gradually increase the order level. Thus, the purchasing firm will, in such a situation, have two or more suppliers during this period with associated cost increases. The problems of search and evaluation also occur in the case of infrequently purchased products. Here, the buying firm will also require considerable information about any potential vendor from whom it has not purchased in the past. Here again, the buyer is likely to value the experience he has of those companies from whom he has purchased before.

Secondly, the buying company can face problems in product use which centre on its internal routines and the experience of its staff. These can be reduced by stability of supplier. For example, some products may require special handling whilst others may need specialized service and maintenance systems. The cost and work load consequences of a change of supplier for such products are often prohibitive. Furthermore, the purchasing firm usually buys a large range of products. Thus, buyers may have to simplify their work by dealing with existing suppliers rather than incur the extra work load (and costs) associated with searching for and evaluating new suppliers' offering.

The third problem area in supplier change is that of the technological adaptation in the buying firm's machinery and its knowledge which may be incurred. Many of the products purchased for use in production are intimately related to the production process itself or to the fundamental characteristics of the firm's end product. Thus, a change in one purchased product can influence the whole production process and/or the firm's end product itself. As a result of this, other components or machines may have to be changed. Furthermore, a purchasing firm needs to have extensive technical contacts with its suppliers' personnel in order to be able to use their resources and knowledge. These contacts may have taken several years to develop. A change in suppliers means that they are lost and that new contacts have to be established with associated costs and personal implications.

Fourthly, if the market consists of a small number of buyers and sellers then action by any one company will be observable by all others and counteractions may be taken. This makes it necessary to plan any actions with regard to the possible response of other companies. These probable responses will militate against change by any one company.'

In summary, there exist arguments for believing that the purchasing firm may seek to reduce its costs and increase its benefits by developing stable relationships. Further, the more developed a relationship is, the more attractive an alternative has to be in order to get attention from the purchasing firm. Finally, the value of stability emphasizes the importance of events in an existing relationship in deter-mining whether new suppliers will be considered.

The purchasing firm's unwillingness to change involves a potential seller in several kinds of problems and costs in the process of establishing itself as a new supplier. It must search for and evaluate customers and decide how much it is prepared to invest in establishing a relationship with them. Costs are involved in developing the technical and informational contacts – the selling process. The seller also has internal costs of change which are similar to those of the buyer. Examples of this are in special product design or new administrative routines which may have to be established to meet the delivery requirements or quality standards of the new customer. Therefore, new relationships are expensive to establish. Existing relationships on the other hand, can save costs in the short term. They are more predictable in that the seller can expect better information about the purchasing plans of old as compared to new customers. Another benefit can be in the suggestions and ideas which can come from the purchasing firm about product development or product use.

The obstacles to change and the benefits of stability severely restrict the applicability in industrial markets of the concept of free movement within markets which is implicit in traditional economic theory. Stability, source loyalty and inertia are logical consequences of the learning process of both buyers and sellers in relation to the technical, commercial and social dimensions of the relationship. These factors are of course mediated by conscious policies of sales expansion on the marketing side and of source development by buyers. Nevertheless, a view of industrial marketing solely in terms of these policies is simplistic and unlikely to give an adequate description of market behaviour.

IMPLICATIONS FOR PRACTITIONERS

We have noted that many (but not necessarily all) industrial markets are characterized by stability and long-lasting relationships between buying and selling firms. We also know that there is a large variation in these relationships both in content and design. In some situations, they are very complex, involving many people, functions and hierarchical levels in each firm. In contrast, other markets are characterized by simple relationships involving only a buyer dealing with a sales representative. Researchers in marketing have, however, no

systematic and comprehensive knowledge about these relationships. We have described earlier how one reason for this is that much of the research in industrial marketin[g] and purchasing has been based on assumptions that are not valid in many industrial markets. Therefore, many of the models and management principles that have been developed in the area have not been applicable or especially useful for firms dealing with such markets. For this reason, it is clear that there is a need for a model which describes the nature of and the differences between buyer–seller relationships in industrial markets of varying character. We can now look at some of the implications of the inadequacy of current models and data for marketing and purchasing management and government industrial

policy.

Marketing Management

As we mentioned in the first section of this chapter, the models and principles for industrial marketing management that are given by the literature are normally related to the marketing mix model. The problems identified in these are the allocation of resources and the designing of competitive means. However, marketers in for example, a highly concentrated industry may find different problems. The issues associated with the handling of ten very large customers are of totally different character from those of handling 1,000 small customers. Thus, marketers in firms in concentrated markets have a lack of accurate models for analysing their marketing problems. They have also a lack of relevant data expressed in a systematic way about the behaviour of other firms in the same situation.

Purchasing Management

The position facing purchasing management is similar to that for marketing. Their models and principles for operation are mostly developed within the context of single purchasing decisions, although there are also some examples of analysis focused more on the long term relationships.' Buyers have perhaps accepted the reality of stable markets more readily than marketers, because there have been obvious reasons for not changing suppliers too often. However the predominant tradition in purchasing literature emphasizes the continuous evaluation of suppliers and, by implication the frequency of decisions on new sources. This approach must be related to the differences between the short and the long term effects of a relationship. The long term benefits of a relationship are often of a non-measureable kind as, for example, access to market and technical information, technological progress through special product design, better chances for co-operative product development, security in crises, etc. The short term effects can more easily be evaluated in economic or monetary terms. However, even in the short term it is often difficult to measure costs against for example, product quality or service. Suppliers which may appear favourable when measured

according to short-term criteria need not necessarily be the best in the long term. Thus we can conclude that both purchasing and marketing management have a lack of model and data for analysing and evaluating their work in these situations.

Industrial Policy

The actions taken by politicians in order to control the economic development (or regression) in a country are often aimed at influencing the behaviour of firms. These actions must be based on realistic models of the behaviour of firms. The assumptions that are frequently made and the models which are used rely heavily on a market model which assumes free and independent units on each side. In the same way, the data that is collected for policy decisions is structured and deter-mined by these models. That means that other assumptions and other models may produce both a change in the alternatives which are considered by government as well as the consequences that are observed. The process of technological development and the means to influence this process is an example of this. Policies based on traditional micro-theory focus on individual units (i.e. companies and research units) and on the development work which is carried on within them. A policy focusing on inter-company relationships would concentrate on the combination of units and the developments which occur in the exchanges between the units.

AIM OF THE STUDY

We started this introduction by discussing some general characteristics of markets. A conclusion was that some industrial markets have features which depart quite considerably from those conventionally considered to be normal. Industrial markets are characterized by stability instead of change, long lasting relationships instead of short business transactions and closeness instead of distance.

An analysis of the benefits of stability provides a rationale for these characteristics. Analysing the relationships between buying and selling firms in greater depth leads to the conclusion that knowledge about these relationships is inadequate, and there is a need both for new theoretical models and empirical data about them.

The aim of this study is to try to generate a more comprehensive picture of these relationships. This means that we have both theoretical and empirical ambitions. On the theoretical level we want to develop concepts and models that can be used in order to describe and understand buyer–seller relationships and the factors influencing them. At the empirical level the study aims to present data about buyer–seller relationships in a form which is useful for analysis, as well as forming a reference for management. Thus, our aim is to describe the nature of buyer–seller relationships that exist in different situations, to provide evidence of the variations in these relationships, and to try to give at least some explanations of these variations.

BASIC FEATURES OF THE PROJECT

The aims of the project were presented in the last section. These will now be elaborated one step further by a short description of the most important characteristics of the study:

Relationships The focus of the study is on *relationships* between selling and buying firms in industrial markets. This means that it is not selling or purchasing firms that are our research objects but the relationships between them. Our population in other words, consists not of persons, products, firms, or markets but of relationships between firms.

International spread Many industrial markets are international in nature and the study has been designed to investigate the international dimension of buyer–seller relationships. The nationality of the buying and selling firms in relationships have been systematically varied. Relationships between purchasing and selling firms from France, Italy, Sweden, Western Germany, and UK formed the total population of relationships from which we chose our units.

Technological spread The assumption that industrial markets are strongly influenced by technological conditions underlies the project. Therefore, we wished to have a spread of technologies in the relationships we investigated. The ways in which the products are used and the production technology of the purchasing firm were chosen as important dimensions of these conditions. The relationships were then chosen in such a way as to obtain a systematic variation in these two dimensions.

Specific as well as general perceptions of relationships Buyer–seller relation-ships are between firms but they are conducted by individuals. Thus, social and psychological factors have important effects on the relationships. This was the main reason behind our wish to investigate both generalized perceptions and attitudes to relationships as well as analysing specific relationships. The latter were documented in interviews with purchasers and marketers. Important aspects that were covered were:the history of the relationship; why it started; its development; crises; technological or other adaptations; characteristics of the product(s) involved; delivery pattern; pattern of contact between individuals; the potential alternatives to the relationship, etc. Data on generalized perceptions and attitudes was collected at the same time and from the same persons. This data was obtained by gathering respondents' reactions to a large number of statements. These statements covered dealings with the same country with which the respondents had an actual buyer–seller relationship which we had investigated. The statements were about the same aspects of relationships that were dealt with in the interview about the actual relationship.

OUTLINE OF THIS VOLUME

This volume is not an attempt to report the whole project. Instead its aim is to describe the background of the project in theoretical and methodological terms. We also want to give some first examples of the data which has been collected and what it can be used for. These examples are, however, not chosen with any higher degree of rationality but they will hopefully give some `pictures' of industrial markets that can be of value to both practitioners and researchers.

The volume consists of five chapters apart from this introduction. In Chapter two the theoretical background and the theoretical framework of the project is described. The theoretical basis of the project is related to earlier research in marketing and purchasing as well as to inter-organizational theory and the new institutional economic theory. Concepts describing the interaction between companies, the parties involved, and the environment are developed and related to each other. A research model – called the `Interaction Model' – is formulated in this way. The chapter is ended by a discussion of the dynamic relationships between purchasing and selling firms and their management implications.

Chapter three is devoted to methodological issues. It is divided into six parts which successively describe how the research project has developed. This gives an opportunity to discuss both the special problems with collaborative research involving several research teams as well as the `normal' methodological problems such as the choice of relationships, design of the questionnaires and so on.

Chapter four which is the largest part of the volume consists of a collection of company cases. Each case describes and analyses one or several relationships from one of the parties' point of view. The cases consist of descriptions based on the theoretical model presented in Chapter two. In the analysis of the cases this model is developed further to an explanatory level as different variables are related to each other and grouped together in `problem' areas. The product and process technologies of the parties involved have been seen as important explanatory variables and the cases have been grouped together according to them. Each grouping is introduced by a short discussion of typical marketing or purchasing problems for that particular type of technology.

In Chapter five the theoretical development continues along series of different paths. The chapter includes five different themes that are related both to the empirical data in the company cases and to theoretical developments of the interaction model. Thus, the themes are not conclusions to the book or to the model. Rather they are attempts to develop these aspects further and form a first step in subsequent analysis as part of the continuing work of the project. In some of the themes a third stage of the interaction model starts to develop as normative applications are drawn. The prescriptive features of the model are more accentuated in the sixth and last chapter. Here, the interaction model is used to analyse the factors that give a company competitive strength in different situations.

NOTES TO CHAPTER 1

1. These basic assumptions can be found in the traditional micro-economic theory of the firm.
2. This assumption was one of the first to be questioned and concepts such as `barrier to entry' are central in models related to oligopoly.
3. For a discussion of transaction costs see Williamson (1975).
4. However, there is much in the purchasing literature which deals with the administration of the purchasing function and routines for purchasing practice.
5. Studies that have shown or indicated this kind of stability are for example Johanson (1966), Wind (1970), Blois (1972), Luffman (1974), Håkansson and Wootz (1975b), (1975d), and Ford (1978).
6. For a discussion of this issue see Scherer (1970).
7. See, for example, Bailey and Farmer (1977).

Chapter 2

An Interaction Approach

INTRODUCTION

In a joint research project with several researchers with different backgrounds there are always problems in developing a common theoretical framework. This was further complicated in this project by differences in language, approach and emphasis between the researchers. We were however fortunate in having similar *basic* approaches to the analysis of Industrial Marketing and Purchasing.' Extensive discussion within the project group led to the discovery of important concepts and assumptions which were shared by all. It is on this theoretical basis that the design and the methodology are built. These concepts and basic assumptions are now presented in this chapter.

RELATIONS TO PREVIOUS RESEARCH

Our theoretical framework can be traced back to two major theoretical models from outside the marketing literature. These are Inter-Organizational Theory and the New Institutional Economic Theory. At the same time it is possible to relate our approach to earlier thinking in marketing and purchasing as well as some emerging trends in the marketing and purchasing literature.

Inter-organizational Theory and Marketing Literature

Much of the work in Inter-organizational Theory involves attempts to apply theory and concepts from intra-organizational studies to problems where several organizational units are involved. Here the focus of attention is on relationships between those organizations rather than within each individual organization. Works in this area can be classified into three groups, based upon differences in the relation between the organization and its environment as proposed by Van de Ven *et al. (1975).* It is also possible to classify marketing literature along similar lines, again depending on the perspective of researchers when dealing with organization–environmental relationships. Such a categorization of the marketing literature has been presented by Sweeney (1972). We will consider the categorization of the inter-organizational literature and the marketing literature in parallel;

(a) Organization based studies The environment is seen as an external limitation for the organization in this group of studies. Inter-organizational studies which can be included in this group are those which examine the internal organization based on an open systems approach. Here, the organization is seen as being

dependent on its environment, for example in obtaining access to certain inputs. At the same time the organization seeks to manipulate or control parts of its environment. Because of this, the characteristics of the environment will influence the shape of the internal organization structure. This organization– environment connection is central and is analysed in many studies.'

The predominant current viewpoint in marketing shares this perspective. It is characterized by Sweeney as the `organizational system perspective', and is exemplified in the so-called `managerial approach' to the study of marketing. In this, marketing researchers are concerned with techniques for the development and management of product, price, distribution, and promotional strategies to optimize desired market response. The boundaries of marketing are defined as those `publics' which have a `... potential impact on the resource converting efficiency of the organization (Kotler and Levy, 1969). It is implicit in this approach that buyers are passive and only react to the stimuli of the seller by buying or not buying. The selling firm is the active partner in the buyer–seller relationship. Further, this relationship is largely seen to be between the seller, and some generic `market', rather than with individual customers.'

It is worth noting at this stage that a side effect of this approach to the study of marketing has been that the study of buyers has developed along somewhat separate lines from the study of sellers. Here, researchers have analysed the factors which affect both the individual and company buying processes, e.g. previous purchase experience, the importance of `task' and `non-task' variables, the effect of different organizational forms and the degree of formality in hypothesized decision-making processes. These analyses have concentrated on the stages in *a discrete* purchase. Thus, there has been an emphasis in the industrial buyer behaviour literature on single rather than continuing purchases from a particular supplier. Additionally, the study of the buying process has taken place with relatively scant regard to the influence of the selling firm in that process.'

Thus, the first group of studies includes two distinct and *separate* approaches to the study of what occurs in industrial markets. On the one hand, there is an analysis of the manipulation of marketing variables by the seller to achieve a desired market response. On the other hand, there is the separate analysis of a single buying process and the factors which affect that process, from which lessons can be drawn for marketing.

(b) Studies based on several organizations In this second group of inter-organization studies, the organization is seen as part of a group of interacting units. Studies within this category are often based on the dependence between the particular organization and its environment as defined by studies from category 1. In order to obtain necessary resources, the organization is seen to develop relations with a number of other organizational units and thus it enters into a network of relationships.

Two aspects of this network have mainly been studied. Firstly, the characteristics of the different organizations have been investigated as they relate to the other organizations within the same network. Secondly, the links between

the units have been analysed in terms of, for example, formalization, intensity, and standardization.[5]

The parallel to these studies in the marketing area are those from a `distribution system perspective'. In this, the field is viewed as a system of interconnected institutions performing the economic functions required to bring about exchange of goods or services. This perspective is, of course broader than the organizational system perspective. The boundaries of marketing at this level of aggregation include those institutions involved in the distribution of goods within the society. The focus is on the nature of the functions being performed by the system and on the structure, performance and inter-relationships of the institutions which comprise the system. Aspects of these areas which have received study are the division of roles and responsibilities between different members of a manufacturing–distribution channel, the conflicts between different levels and within levels in the channel as well as the patterns of power and communication which exist between them.' During recent years, a number of works on more general aspects of marketing and purchasing have appeared which fit within this group.'

(c) Studies of the organization in a societal context In this third category, the organization is seen as an integrated part in a larger social system. In order to describe and understand how a certain organization functions it is necessary, according to this approach, to see the organization in relation to the larger system. The organization is part of what some authors call `inter-organization collectivities' and these groups influence to a large extent the actions of the organization.' The view of marketing from a `social system perspective' sees it as a social process which evolves to facilitate the society's needs for efficient and effective exchange of values. There is a clear distinction between this approach and its emphasis on analysis of the exchange process, and the organizational system approach which is concerned with the technology employed to execute that exchange process.

The view of marketing from a social system perspective is little developed. The majority of the marketing literature can be classified into group 1 above, while our approach belongs to group 2. There are also some minor attempts in our study to go in the direction of the works in group 3. However, the major focus of our attention is on the units (the buying and selling firms) and the link between them (the process of interaction).

The New Institutionalists

The second theoretical area outside the marketing literature that we have built upon has been characterized by Williamson (1975) as `the New institutionalists'. This line of thought within micro-economic theory is based on a criticism of certain aspects of traditional economic theory. Williamson discerns two alternative ways in which the exchange (transaction) may be handled between technologically separable units in a production or transformation process. Firstly, the transaction can take place within a market setting. On the other hand it can be

internalized in one organizational unit (a hierarchy), i.e. two successive stages in the production process are vertically integrated in a hierarchically built organization. There are certain deficiencies in markets that favour the internalization of transactions. Similarly, there are also deficiencies in the way organizations function that operate in favour of keeping the transactions in the market, i.e. keeping the successive production stages under separate control and reaching agreements on buying and selling, through, for example, negotiated contracts.

Williamson argues that many transactions which are internalized in one organization could be carried out by separate organizations, from the point of view of technological separability. However, the co-ordination of these units by means of market relations involves disadvantages. Markets may be considered to operate inefficiently in certain instances, due to human and environmental factors. When the environment is characterized by complexity and uncertainty, then the bounded rationality of man makes it very costly to design and negotiate viable contracts. An example would be between two subsequent stages in a steel mill. Furthermore, the parties to such transaction may become very dependent on each other. This evolves into a small-numbers bargaining relation. Although the parties in a formal sense retain the option of selecting partners in the market, this is not a viable alternative due to transaction costs. Thus it will be very costly to design and negotiate contracts with new partners. This is because it is often difficult for one party to achieve information parity with the other party, which is necessary for a `fair' deal. Man is not just characterized by bounded rationality but also by opportunism ('self-seeking interest with guile'), and this makes markets operate inefficiently when there is an imbalanced dependence between the parties.

The high transaction costs that would be associated with operations in markets of the atomistic kind provide incentives for the internalization of such expensive transactions in vertically integrated units. Conflicts are considered to be settled in a more efficient and less costly way within an organization (by fiat rather than by haggling), and sequential, adaptive decision-making is facilitated. Opportunism is checked by control and audit.

However, there are also conditions counteracting the internalization of transactions. Firstly markets often do not operate as rigidly, and organizations do not operate as smoothly as depicted in the idealized extreme models (internal control is made more difficult as organizations grow in size), and thus transaction costs increase. Also there are checks on the opportunism in markets, e.g. courtesy, the interest in establishing conditions for future business and the effects of the firm's reputation on business deals with others. Imbalances are not always exploited in the short term in a way that increases transaction costs. Secondly, transactions do not take place in an attitudinally neutral setting. The establishment of satisfying exchange relations (an `atmosphere') modifies and is modified by the transactions.

Thus there are several factors that influence transaction costs and there are also intermediary settings for the exchange relations. Many industrial markets can be seen as such intermediary forms. Here we find such market characteristics as established small-numbers bargaining relations and lack of information parity.

to established social relationships. Often a specific atmosphere has evolved that is characterized both by environmental and human factors.

Our theoretical framework is closely related to both `inter-organizational theory' and the `new institutionalists'. At the same time it is directly related to evolutions in the literature of marketing, and particularly to the emphasis on inter-company relationships. This has emerged from those studies having a distribution system perspective and more recently from those empirically based studies which have emphasized the importance of inter-company relations.

OUTLINE OF THE MODEL

Our approach to industrial markets – *The Interaction Approach – is* based on the theoretical idea described earlier. It is also built on a number of factors which our earlier empirical studies indicate are important in industrial markets and which appear to have been largely neglected in previous research:

Firstly, that both buyer and seller are active participants in the market. Each may engage in search to find a suitable buyer or seller, to prepare specifications of requirements or offerings and to manipulate or attempt to control the transaction process.

Secondly, the relationship between buyer and seller is frequently long term, close and involving a complex pattern of interaction between and within each company. The marketers' and buyers' task in this case may have more to do with maintaining these relationships than with making a straightforward sale or purchase.

Thirdly, the links between buyer and seller often become institutionalized into a set of roles that each party expects the other to perform, for example the division of product development responsibility, or the decision as to who should carry inventory and test products. These processes may require significant adaptations in organization or operation by either or both companies. Clearly, these relationships can involve both conflict as well as co-operation.

Fourthly, close relationships are often considered in the context of continuous raw material or component supply. However, we would emphasize the importance of previous purchases, mutual evaluation and the associated relationship between the companies in the case of infrequently purchased products. Further, we are concerned in this research with the nature of the relationship between a buying and selling company which may be built up during the course of a single major transaction.

Our focus is generally on a two party relationship, but the approach can be applied also to a several party relationship. This, indeed, may be necessary to accommodate the study of the simultaneous interactions between several buying and selling companies in a particular industry. The main components of our approach are illustrated in Figure 2.1.

In the figure we identify four groups of variables that describe and influence the interaction between buying and selling companies:

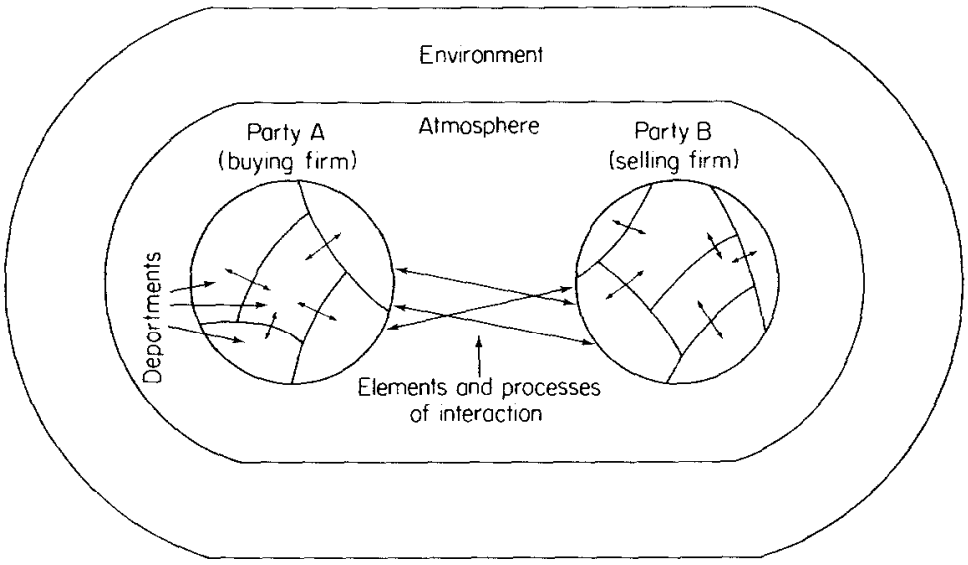


Figure 2.1 Main elements of the interaction model

variables describing the *parties* involved, both as organizations and as individuals;
variables describing the *elements and process of interaction;*
variables describing the *environment* within which the interaction takes place;
variables describing the *atmosphere* affecting and affected by the interaction.

The approach does not only involve an analysis of these groups of variables but it also includes the relations between them.

THE INTERACTION MODEL

The marketing and purchasing of industrial goods is seen as an interaction process between two parties within a certain environment. Our way of analysing industrial marketing and purchasing has four basic elements which in turn are sub-divided. These are:

1. The interaction process .
2. The participants in the interaction process
3. The environment within which interaction takes place
4. The atmosphere affecting and affected by the interaction.

In this section we will describe each of these four basic elements more extensively. The major focus here is on *description* of buyer–seller relationships and interactions. Only secondary emphasis is placed here on the interplay between the separate elements which we discuss. These interrelationships are developed later in the book.

The Interaction Process

We have already noted that the relationships between buying and selling companies in industrial markets are frequently long term. Thus, it is important in our analysis to distinguish between the individual `Episodes' in a relationship, e.g. the placing or delivering of a particular order, and the longer-term aspects of that relationship which both affects and may be affected by each episode. We shall consider these individual episodes, first:

(a) Episodes

The episodes which occur in an industrial market relationship involve exchange between two parties. There are four elements which are exchanged:

(i) Product or service exchange
(ii) Information exchange
(iii) Financial exchange
(iv) Social exchange.

(i) *Product or service exchange* The exchange of product or service is often the core of the exchange. As a result, the characteristics of the product or service involved are likely to have a significant effect on the relationship as a whole. For example, one major aspect of the product or service which seems important is the uncertainty with which they are associated. The exchange process will be quite different depending on whether or not the product is able to fulfil a buyer need that is easy to identify, and for which the characteristics of an appropriate product are easy to specify. It will also be important whether either buyer or seller is uncertain as to the requirements or resources of their opposite number.'

(ii) *Information exchange* Several aspects of information exchange are of interest. The content of information is, of course, important. This can, for example, be characterized by the degree to which technical, economic, or organizational questions dominate the exchange. Furthermore, the width and depth of the information for each of these groups of questions should also be of importance. Information can be transferred between the parties by either personal or impersonal means. Impersonal communication is often used to transfer basic technical and/or commercial data. Personal channels are more likely to be used for the transfer of `soft data' concerning, for example, the use of a product, the conditions of an agreement between the parties, or supportive or general information about either party. Finally, the formality of the information exchange is important. The degree of formality may depend on wider organizational characteristics which can affect the nature of the interaction process and the relationship between the companies as a whole.

(iii) *Financial exchange* Money is the third element. The quantity of money

exchange is an indicator of the economic importance of the relationship. Another important aspect is connected with the need to exchange money from one currency to another and the uncertainties in these exchanges over time.

(iv) Social exchange Social exchange has an important function in reducing uncertainties between the two parties (Håkansson and Ostberg, 1975). This is particularly significant when there exists spatial or cultural distance between the two parties or where the experience of the two parties is limited. Social exchange episodes may be important in themselves in avoiding short term difficulties between the two parties and in maintaining a relationship in the periods between transactions. However, perhaps the most important function of social exchange is in the long term process by which successive social exchange episodes gradually interlock the two firms with each other. Many aspects of the agreements between the buying and selling firms are not fully formalized nor based on legal criteria. Instead the relationship is based on mutual trust.[10] Building up this trust is a social process which takes time and must be based on personal experience, and on the successful execution of the three other elements of exchange. Furthermore, the need for mutual trust and the requirement of social exchange varies with differences in the elements exchanged in different relationships. Examples are variations in the amount of money exchanged, in the need for large amounts of informational exchange or in the complexity of the product exchanged. However, the development of trust is also dependent upon experience in exchange of the other three elements.

(b) Relationships

Social exchange episodes are, as has been described above, critical in the build up of long-term relationships. Exchanges of product and service (which can be in both directions) and of the other elements of money and information can also lead to the build up of long-term relations. The routinization of these exchange episodes over a period of time leads to clear expectations in both parties of the roles or responsibilities of their opposite numbers. Eventually these expectations become *institutionalized* to such an extent that they may not be questioned by either party and may have more in common with the traditions of an industry or a market than rational decision making by either of the parties (Ford, 1978).

The communication or exchange of information, in the episodes successively builds up inter-organizational contact patterns and role relationships. These *contact patterns* can consist of individuals and groups of people filling different roles, operating in different functional departments and transmitting different messages of a technical, commercial, or reputational nature. These patterns can interlock the two parties to a greater or lesser extent and they are therefore an important variable to consider in analysing buyer–seller relationships. It is important to note that information and social exchange between parties can continue for a considerable time without there being an exchange of product or money. Thus, literature, specification development, and visits between companies

can occur before the first order is placed or between widely spaced individual' orders.

Another important aspect of the relationship is the *adaptations* which one or other party may make in either the elements exchanged or the process of exchange. Examples of this are adaptations in product, in financial arrangements, in information routines or social relations. These adaptations can occur during the process of a single, major transaction or over the time of a relationship involving many individual transactions. The benefits of these adaptations can be in cost reduction, increased revenue, or differential control over the exchange. Adaptations in specific episodes may also be made in order to modify the overall relationship. Thus one party may make a decision not to offer special products to a customer out of a wish to be more distantly involved with that customer, rather than being closely involved and/or heavily dependent on it.

The manipulation of different aspects of adaptation is of course a critical marketing and purchasing issue. Although adaptations by either party can occur in an unconscious manner as a relationship develops, it is important to emphasize the conscious strategy which is involved in many of these adaptations. Thus, modifications to product, delivery, pricing, information routines and even the organization itself are part of the seller's marketing strategy. Similarly, the buying organization will consider adaptations in its own product requirements, its production methods, the price it is prepared to accept, its information needs and the modification of its own delivery or stocking policies in order to accommodate the selling organization.

The Interacting Parties

The process of interaction and the relationship between the organizations will depend not only on the elements of the interaction but also on the characteristics of the parties involved. This includes both the characteristics of the two organizations and the individuals who represent them. The organization factors include the companies' position in the market as manufacturer, wholesaler, etc. It also includes the products which the selling company offers, the production and application technologies of the two parties and their relative expertise in these areas. Below, we will discuss some of the major factors in more detail:

(a) Technology Technical issues are often critical in buyer—seller interaction in industrial markets. The aims of the interaction process can be interpreted as tying the production technology of the seller to the application technology of the buyer. Thus the characteristics of the two technological systems and the differences between them give the basic conditions for the interaction. These basic conditions influence all the dimensions of the interaction processes; for example, the requirements for adaptations, mutual trust and contact patterns. Similarly, if the two organizations are separated by a wide gulf of technical expertise then the relationship between them can be expected to be quite different from a situation where the two companies are close in their level of expertise. Technology will be one of the variables which are in focus in the rest of this book. It will be further

discussed in the methodological chapter, then in relation to the company cases and finally as a separate theme.

(b) *Organizational size, structure, and strategy* The size and the power of the parties give them basic positions from which to interact. In general, a large firm with considerable resources has a greater possibility of dominating its customers or suppliers than has a small firm. The structure of each organization and the extent of centralization, specialization and formalization influence the interaction process in several ways; this influence is seen in the number and categories of persons who are involved. It also affects the procedures of the exchange, the communications media used, the formalization of the interaction and the substance of what is exchanged – the nature of product or service and the finance which is involved. In the short term, organizational structures can be considered as the frameworks within which interaction takes place. In the longer term, it is possible that these organizational structures may be modified *by* the emerging interaction process or indeed by individual episodes.

The strategies of the parties are, of course, important influencing variables on the relationships. Later on we will describe how strategies can be formulated and analysed in relation to our theoretical approach.

(c) *Organizational experience* A further factor is the company's experience not only in this relationship but also its experience and activities outside it. This experience may be the result of many other similar relationships and will equip the company with knowledge about the management of these kinds of relationships. It may also affect the level of importance attached to any one relationship, and hence the company's commitment to that relationship.

The variables which we will discuss in the next section under the title of Interaction Environment will be mediated by the experience of specific individuals in a company as well as by the more generalized `experience' of a company. Thus the company's experience in particular markets will enable it to be more or less fitted for dealing in that market. Similarly, its experience of international operations will affect its willingness and ability to establish international relationships.

(d) *Individuals* At least two individuals, one from each organization, are involved in a relationship. These are usually a buyer and a salesman. More commonly, several individuals from different functional areas, at different levels in the hierarchy and fulfilling different roles become involved in inter-company personal interactions. They exchange information, develop relationships and build up strong social bonds which influence the decisions of each company in the business relationship.

The varied personalities, experience, and motivations of each company's representatives will mean that they will take part in the social exchange differently. Their reactions in individual episodes could condition the ways in which the overall relationship builds up. Further, the role, level, and function of central persons in the interaction may affect the chances of future development occurring in the relationship.

Individual experience may result in preconceptions concerning certain suppliers or customers, for example those in a certain country. These will affect attitudes and behaviour towards those buyers or suppliers. The process of learning from experience on both an individual and corporate level is communicated to and affects detailed `Episodes' in interaction. Additionally, the experience gained in individual episodes aggregates to a total experience. Indeed, the experience of a single episode can radically change attitudes which may then be held over a long period of time.

The Interaction Environment

The interaction between a buying and selling firm cannot be analysed in isolation, but must be considered in a wider context. This wider context has several aspects;

(a) *Market structure* Firstly, a relationship must be considered as one of a number of similar relationships existing either nationally or internationally within the same market. The structure of this market depends in part on the concentration of both buyers and sellers and the stability or rate of change of the market and its constituent members. It also consists of the extent to which the market can be viewed as strictly national or needs to be thought of in wider international terms. The extent of buyer or seller concentration determines the number of alter-natives available to any firm. This has a clear bearing on the pressure to interact with a certain counterpart within the market.

(b) *Dynamism* The degree of dynamism within a relationship and in the wider market affects the relationship in two ways that are opposite to each other. Firstly, a close relationship increases the knowledge of one party of the likely actions of the other party and hence its ability to make forecasts based on this inside information. Secondly and conversely, in a dynamic environment the opportunity cost of reliance on a single or small number of relationships can be very high when expressed in terms of the developments of other market members.

(c) *Internationalization* The internationalization of the buying or selling market is of interest as it affects either firm's motivations in developing international relationships. This in turn may affect the company's organization, in needing sales subsidiaries or overseas buying units, the special knowledge it may require, e.g. in languages and international trade and its more general attitudes.

(d) *Position in the manufacturing channel* A further aspect of the environment which must be brought into consideration is the position of an individual relationship in an extended `channel' stretching from primary producer to final consumer. Thus, for example manufacturer A may sell electric components to manufacturer B**,** who then incorporates these components into actuators that are sold to manufacturer C, who adds them to valves. These valves, with many other products, may form the stock of distributor D and so on. The marketing strategy of A may thus be influenced by and directed at several markets at different stages

in the channel. Clearly his relationship with buying company B will be affected by both A's and B's relationship with C and other subsequent organizations.

(e) The social system As well as the effects of both horizontal market and vertical channel influences on a relationship, we must also consider the characteristics of the wider environment surrounding a particular relationship – the social system. This is particularly relevant in the international context where attitudes and perceptions on a generalized level can be important obstacles when trying to establish an exchange process with a certain counterpart. An example of this is nationalistic buying practices or generalized attitudes to the reliability of buyers or customers from a particular country. Other aspects of these general influences concern regulations and constraints on business, for example exchange rates and trade regulations. There are other, more narrow social system variables which will surround a particular industry or market. For example, a supplier who has not previously delivered to a certain type of customer, e.g. in the automobile industry, has to learn both the `language' and the rules before it will be accepted in that industry.

The Atmosphere

The relationships between buying and selling firms are dynamic in being affected by the individual episodes which take place within them. At the same time they have the stability which derives from the length of the relationship, its routinization and the clear expectations which become held by both parties. The relationship is influenced by the characteristics of the parties involved and the nature of the interaction itself. This in turn is a function of the technology involved and the environment within which the interaction takes place. Organizational strategy can also affect both the short-term episodes and the long-term relationship between the parties. One of the main aspects of the relationship which may be affected by conscious planning is the overall atmosphere of the relationship. This atmosphere can be described in terms of the power–dependence relationship which exists between the companies, the state of conflict or co-operation and overall closeness or distance of the relationship as well as by the companies' mutual expectations. These variables are not measured in a direct way in this study. Instead the atmosphere is considered as a group of intervening variables, defined by various combinations of environmental, company specific, and interaction process characteristics. The atmosphere is a product of the relationship, and it also mediates the influence of the groups of variables. There are reasons for the buying and selling firm to both develop a high degree of closeness with their counterpart as well as to avoid such closeness. There are both advantages and disadvantages connected with different atmospheres. We can analyse the reasons involved with regard to an economic (cost–benefit) dimension and a control dimension.

(a) The economic dimension There are several types of cost that can be reduced for a firm by a closer interaction with a buying or selling firm. One of these costs

is that which Williamson (1975) describes as the transaction cost. A closer connection means that it may be possible to handle distribution, negotiations, and administration more efficiently. Another type of cost which may be reduced is the production cost. A close relationship gives opportunities to find a more optimal division of the production process between the supplier and the customer. The supplier and buyer may reallocate some production processes between each other or co-operate in the design so as to make the product easier to produce or for the customer to develop further. There are also increased revenues which can be gained by a closer interaction. Both sides may achieve positive gains by better use of the other's competence, facilities, and other resources. New products can be developed together or old products may be redesigned. Furthermore, the parties can also often give each other valuable technical and commercial information.

(b) The control dimension Another important reason for closer connection with a counterpart can be to reduce the uncertainty associated with that input or output by increasing its control over the other company. Such an increase in control improves the firm's chances of forecasting and determining that part of its environment. The ability to control a relationship is related to the *perceived* power of the two parties. Perceptions of power are likely to be unclear in the early stages of a relationship and one of the key functions of initial exchange episodes will be to enable each party to come to an understanding of each other's power. Even so, perceptions of power may change over the life of a relationship. They will, in turn be related to the resources perceived to be possessed by each party as well as to their relative dependence on this individual relationship. Inter-organizational power will depend on the ability of either party to reward or coerce each other through exchange, or their relative expertise and access to information, as well as on their referent power, i.e., the value which one party places on association with another because of its wish to learn from and act similarly to the other.

The power of organization A over B is directly related to the dependence of B on A. The dependence on any one relationship by an organization is a major element in the wish to restrict interaction. Investment of time and resources in one relationship has an opportunity cost related to the value of those investments in another relationship. Also, the level of dependence on one relationship affects the vulnerability of an organization to the exercise of power by its opposite number. In everyday terms this is exemplified by a selling company which has a large proportion of its sales to one single buying company. It is the management of the closeness of the relationship, with its associated power and dependence which is perhaps a crucial aspect of many industrial marketing and purchasing strategies.

Summing up this discussion of the reasons for a close interaction, we can conclude that relationships are established and used in order to gain economic benefits, lower costs, higher profits, and/or improving the organization's control of some part of its environment. A critical aspect of the management of these relationships is the extent to which the firm can balance its inter-dependence with others. The firm must seek to balance the advantages of a close relationship, perhaps in terms of cost reduction and ease and speed of interaction, against

the opportunity costs of that single relationship and the dependence which it involves.

SUMMARY

In Figure 2.2 we have tried to illustrate the different variables which have been presented here. The model shows the short-term and long-term aspects of the `Interaction Process' between buying and selling companies A and **B.** The short-term `Exchange Episodes' involve product–service, financial, information, and social exchange. These are separated from the longer term processes of 'Adaptations' and `Institutionalization'.

Both the short and long term aspects of the interaction are considered as being influenced by the characteristics of the organizations and individuals involved (circles A and B). Additionally we see the interaction taking place within an `Environment' consisting of the vertical and horizontal market structure and general social influences.

Finally we include `Atmosphere'. As the company's relationship develops so the parties' views of their relative power may change. Previous research has shown quite clearly that the interaction between buying and selling companies is conditioned by a clear and commonly held view of the relative power of the parties to the interaction and the areas to which this power extends. At the same time we have noted that conflict can characterize these relationships as well as co-operation. Thus it is quite possible for a company to have one relationship with a particular buyer–seller which is characterized by co-operation. It is also possible for the company to have a relationship with another company which is characterized by co-operation on the *minimum* level, in order for transactions to take place but thereafter is marked by frequent conflict over means and allocations of resources. Thus the detailed interaction process is subject to the perceptions of both parties of the overall state of relations between them – power–dependence and conflict–co-operation.

The figure shows that it is possible to identify and study connections between the variables on different levels. Firstly, at the most general level, one variable group can be related to another, for example it is possible to relate the parties in the exchange process to the interaction environment. Secondly, it is possible to investigate the linkage between variables in one variable group, for example between the elements of exchange and the process of exchange. Thirdly, it can be valuable to explore the relation between the variables within a sub-group. An example of this is the connection between the characteristics of the product and the characteristics of the information which is exchanged. Some of the relationships between variables mentioned above are more obvious and are documented in other studies. Others are more hypothetical and have never been studied systematically. Furthermore, the whole picture has never been studied as a totality. Our approach is to select combinations of variables from the environment, company, and interaction categories. This provides a number of `interaction atmospheres', within which different linkages are studied as well as systematic

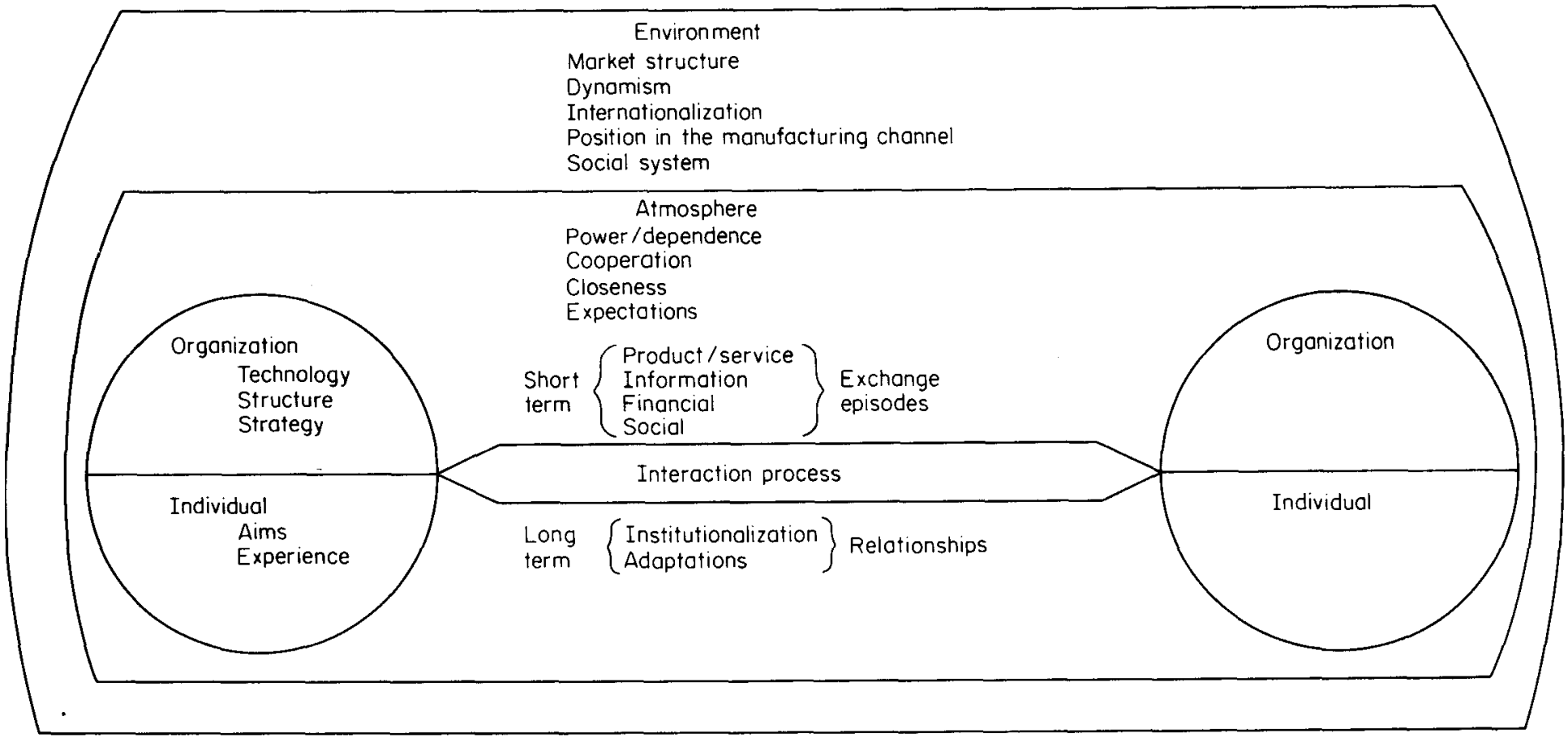


Figure 2.2 An illustration of the interaction model

comparisons made. In the next chapter we will describe the process by which we have attempted to examine the complete nature of the buyer–seller interaction.

IMPLICATIONS FOR MANAGEMENT

Before starting to discuss how our theoretical model has been used in this project we would like to briefly indicate the kind of help this model can give practitioners. The practical use of a theoretical model is, of course that it helps to structure the `world' and thereby the problems. A new model can as a consequence give new opportunities because problems which were neglected earlier may be identified and solved. We shall now give some examples of problems that can be identified for managers of marketing or purchasing departments in firms working in certain industrial markets. We shall start with the marketing side.

Marketing Management

In the introduction chapter it was mentioned that the key problems in marketing according to the marketing mix model are (1) allocation of resources and (2) design of individual competitive means. In the same way we can use the inter-action model and identify two groups of important problems. These groups have been named (1) limitation and (2) handling problems."

Two different kinds of limitation problems can be specified. The first problem concerns the marketing firm's overall limitation of its activities in certain types of relationships. This must be achieved because the demands on its technology, organization, and knowledge, etc., are closely related to the type of relationships. For example, it is very difficult for a seller to have customers with very high demands on the quality and performance of the product *and* customers which just want a standard quality as cheaply as possible. The marketing firm, thus, has to limit itself to be an efficient counterpart in a certain type of relationship and to design its technology, organization, and knowledge in accordance with this.

The second type of limitation problems for the marketing firm are concerned with its individual counterparts. The question is, should customers be treated in a uniform way, or should some customers get special treatment? Normally there is a very clear difference between how those `special' customers are treated when compared with other customers. The special customers – often those who buy most – get special services, extra attention and so on. The customers are in other words often dealt with quite differently and it is therefore necessary for the marketing firm to develop a policy on these questions.

The handling problem concerns both the long-term aspects of the relationships as well as the short-term exchanges of different elements. The long-term problems concern handling the power–dependence and the co-operation–conflict aspects of the relationships. The aim is to have a controlled development of the relationships. This can sometimes mean closer co-operation and sometimes the opposite. The short-term problems are primarily related to attaining an efficient way of handling the elements (the different exchange processes) with individuals as well as groups of customers. One problem area is for example, to design one's own adaptations

and to influence the counterpart's adaptations in order to make exchange processes easier. The way of solving the short-term handling problems affect, of course, the long-term problems. Adaptation is an example of one aspect of
the power–dependence relationship. This means that the long- and short-term problems in a relationship cannot be divided; they can better be seen as short-and long-term effects of all of the activities which constitute the relationship.

Purchasing Management

The key problems in purchasing that can be identified using the interaction model are (1) to develop an appropriate structure of suppliers and (2) to handle each relationship in an efficient way. The second group of problems are the same as the handling problems for the marketing side and we therefore, can leave them aside
and concentrate on the first group.

A supplier can be seen as an external resource by the buying firm. The buyer's aim in relationships is to use these external resources in an efficient way. But in order to be attractive as a counterpart, the purchasing firm also has to have some internal resources. One strategic purchasing question therefore, is to find and maintain a balance between the external and the internal resources. The problem in the short term can be formulated as using these external resources as much as possible given the internal resources of the buying firm.

Another problem is that suppliers can be used in different ways. In some situations the purchasing firm may want to use a supplier's ability to develop and design a special product, while in other situations it may just want to use the supplier's ability to produce a standardized product at low cost. The counterparts are used in different ways and a problem is then to find the right combination of suppliers, i.e. to develop an appropriate external resources structure.

Both purchasing and marketing problems will be further discussed in the cases and theme chapters. Limitation and handling problems will also be discussed in the last chapter when we deal with the company's competitive strength.

NOTES TO CHAPTER 2

1. The background of the research teams can be seen in the following references: Cunningham and White (1974), Cunningham and White (1973/6), Cunningham and Kettlewood (1976), Cunningham and Roberts (1974), Ford (1976), (1978), Hakansson and Wootz (1975a), (1975b), (1975c), (1975d), (1979), Hâkansson, Johanson, and Wootz (1977), Hâkansson *et al.* (1979), Hakansson and Ostberg (1975), Johanson and Vahlne (1977), Johanson and Wiedersheim-Paul (1975), Kutschker (1975), Kutschker and Roth (1975), Kirsch, Lutschewitz, Kutschker (1977), Lutschewitz and Kutschker (1977), Kirsch and Kustchker (1978), Kutschker and Kirsch (1978), and Valla (1978a), (1978b), (1978c), (1978d), and (1978e).
2. Important works within this category; Dill (1958), Burns and Stalker (1961), Thompson (1967), Emery and Trist (1968), Aiken and Hage (1968), and Hall (1972).
3. Important works within this area are textbooks such as Kotler (1976) and McCarthey (1978). These deal mainly with consumer marketing but these and similar works have formed a basis for the development of literature in the industrial

marketing field. Examples within industrial marketing which share this approach are Corey (1976), Hill *et al.* (1975), Hill (1972), and Wilson (1972) and (1973).

4. Important works regarding purchasing using this approach are textbooks such as England (1970), Lee and Dobler (1971) and Westing, Fine, and Zenz (1976) and research oriented books like Buckner (1966), Robinson and Faris (1967), and Webster and Wind (1972a). The two most well-known models of purchasing are Webster and Wind (1972b) and Sheth (1973).
5. Important works within this category; Levine and White (1961), Litwak and Hylton (1962), Evan (1966), Warren (1967), Marrett (1971), and Aldrich (1972).
6. See for example Rosenberg and Stern (1970), Little (1970), Heskett, Stern, and Beier (1970), El-Ansary and Stern (1972), Hunt and Nevin (1974), Angelmar (1976), and Reve and Stern (1979).
7. Examples are Blois (1975), Guillet de Monthoux (1975), Mattsson (1975), Jarvis and Wilcox (1977), Melin (1977), Webster (1979), and Arndt (1979).
8. Important works are; Levine and White (1972), Warren (1973), Van de Ven *et al.* (1975), Zeitz (1975), and Aldrich (1979).
9. Need uncertainty has for example been used as a variable by Hakansson, Johanson, and Wootz (1977) in order to describe this aspect.
10. See for example Macaulay (1963).
11. This section builds on Hakansson, Johanson, and Wootz (1977), and Hakansson and Wootz (1979).

Chapter 3

Methodology

INTRODUCTION

This chapter describes the process by which the IMP-project has been carried out to date. The chapter illustrates the sequence of stages through which the project has developed. It is particularly important to examine not only the form of data gathering and analysis but also the considerable organizational tasks in this unique project. These tasks involved the co-ordination of researchers from the five countries, each with different human and financial resources, experience, and motivations. The chapter describes how the group achieved the task of carrying out over 800 interviews using common questionnaires and the subsequent analysis of this vast amount of data.

RESEARCH APPROACH

The methodological problems of the IMP-project and the way they were solved are probably best understood in terms of the basic research approach of the project. This can be explained by distinguishing between two basic types of possible approaches. The first we refer to as the *Co-ordinated Decision Approach* and the second as the *Incremental Commitment Approach.*

In the co-ordinated decision approach a single major decision is made about the design of the project. Of course this decision is composed of a number of partial decisions, but they are assumed to be made simultaneously and in a co-ordinated way. In this approach the emphasis is on the rationality of the decision. The implicit assumption is that there are few implementation problems and that the implementation is not affected by the decision-making procedure. The research is assumed to take place in some type of organizational vacuum. This approach probably requires that the research organization is centralized and that the financial resources of the central authority make it possible for them to control the research work. Even so, it probably neglects some of the realities of research work.

The incremental commitment approach stresses the series of commitments by the research workers to carry out the research work. Its emphasis is on the motivational aspects of the process. It does not assume that research decisions are not made. Instead it sees the main research problems as one of implementation rather than of the correctness of the research decisions. Furthermore, it assumes that implementation is dependent on the decision-making procedure of the researchers. The commitment of the researchers is crucial to the success of the project. It is assumed that their commitment depends on their participation in the

decision-making, and that the commitments must be made incrementally and be reinforced by progress in the research work. This approach is probably more suitable when there is a decentralized organization, shortage of financial funds initially and no central competence regarding the particular characteristics of research work in the various dispersed research groups.

The research approach of the IMP-project can be characterized as being very close to the incremental commitment approach. The reason for this is simply that there were no alternatives. The project was initiated on the basis of one, somewhat unclear although promising idea held by some researchers with very small resources in terms of both money and time. Consequently the whole research process had more the characteristics of `muddling through' than of implementation of a meticulously planned research design. This concept of `muddling through' is taken from Lindblom (1959) and Braybrooke and Lindblom (1963).

This methodological chapter has been structured in accordance with our basic approach to the research. Thus each section deals with one phase of the research process. Furthermore, each section discusses what is perhaps the most important methodological question in this approach. This key question is the problem of balancing forward *movement* in the project against greater *penetration* of the issues to be tackled. The need for observable signs of progress is closely related to the motivation of the research members. All the researchers were aware of the problems of carrying out such a large co-operative project. In these circumstances, the absence of any observable movement in the project could lead to a feeling of going backwards; with movement there will be a feeling of progress which generates enthusiasm and so on. The need for penetration is closely related to the quality of the research process. For example, better penetration of issues of questionnaire design means that the data collected will be of better quality. However, penetration takes time and the process may often be difficult to interpret as movement forwards. An over-emphasis on penetration at each stage can therefore diminish the enthusiasm of the researchers and endanger the whole project. Thus, the balancing consists of finding the right mix of movement and penetration and this means that movement must sometimes be stressed at the expense of penetration.

The first section of the chapter deals with the formulation of the project involving researchers in five countries. The objectives of the research project had to be agreed and specified in such a manner as to comprise theoretical and empirical aspects. These objectives also had to unify the separate research groups to achieve common results and accommodate different expectations.

The second section discusses the way in which specific methodological problems had to be overcome in the design of the study. This involved decisions about the type and number of buyer–seller relationships which it was considered necessary to study. A choice matrix was developed and used to specify the type of products and the technologies of suppliers and customers in the relationships which were to be studied. This section also discusses the ways in which the variables identified in the theoretical model were isolated. It also shows how appropriate research instruments such as questionnaires, interviews, and attitude statements were developed for their analysis and measurement.

The third section deals with the way these research instruments were used during the data gathering phase and the problems which then occurred. The research process up to this point is also evaluated.

The fourth section is concerned with the analysis phase of the research. This phase is not yet completed. However, much analysis has been made and this section outlines the process of planning and carrying out this analysis.

The last section in this chapter summarizes some of our experience in this research project. In particular, it deals with the problems of carrying out a large multinational collaborative project and how we tried to overcome these problems.

THE FORMULATION PHASE

The First Idea and the Development of Resources and Organization

The Uppsala group was the first to explore the possibilities of research collaboration with colleagues in other countries. This was in order to add a new dimension to their several observations of relationships between buying and selling firms in industrial markets. These earlier studies had been of the inter-national marketing operations of Swedish firms and of industrial purchasing. These studies led to the objective of carrying out a broader investigation of seller–buyer relationships for industrial products in several international markets. It was felt that such relationships may be different depending on variations in environmental conditions. The inclusion of several countries would provide a wide range of economic, market, and cultural conditions. The Uppsala tradition of international business research and the growing importance of international marketing and purchasing led to a focus on a comparative study of relationships between buyers and sellers.

Initially the project was conceived as a number of case studies involving pairs of countries such as `English–Swedish Cases', `French–Swedish Cases', etc. For these cases, seminars were held with Swedish exporting managers whose opinions later formed an input into the project and whose positive interest strengthened the researcher's belief in the relevancy of the project idea. This Case idea was developed jointly in contacts between Uppsala and UMIST in the UK, and shortly afterwards with researchers from Bath and Lyon.

The aim from the beginning was not at all to accomplish a co-ordinated inter-national study. This aim evolved during the research process as a result of the interest from the other research groups. Additionally, there were very limited financial resources available in the early stages. The research process therefore had to generate financial resources. This meant that financial resources were not used in order to engage researchers. Instead, it was researchers who committed themselves to the project and who then acquired financial resources. Each national group had to obtain its own finance and to commit the necessary human research resources to the project.

The first meeting of the emerging research group was held in September 1976. The main objectives and outline of the project as described in the next paragraph were then decided. At the time of this meeting contacts had not been established

with Germany and Italy. Subsequently, a series of visits and personal contacts with academic institutions in Germany located the researcher at Munich. Efforts to establish a collaborating research group in Italy proved fruitless and an Italian speaking member of the Uppsala group was seconded to work in Italy. In this way a viable five-country international research study evolved.

Objectives

The research objectives were empirical as well as theoretical. The empirical objectives relate to the desire of each of the research groups to extend their own previous studies of such subjects as organizational interaction, buyer behaviour, organizational risk handling, decision-making, power dependence, and buyer–seller relationships into a wider international context. The empirical objectives of the Uppsala group have already been described. The interest of the other groups in the early discussions was also based on their objectives and these are now described:

The group at UMIST in the United Kingdom had carried out a systematic study programme to investigate the effects of variations in technology and market structure upon customer buying behaviour in capital goods, component and raw materials markets. They had already embarked upon a comparative study of inter-company relationships between buyers and sellers. However, all their work had been in the context of the UK market. Their objective was to extend their studies into international markets.

In a similar manner, the researchers at Bath (UK), Munich (West Germany) and Lyon (France) had already established their own expertise in various aspects of industrial marketing and purchasing. For example, Bath had undertaken research into the development of long-lasting relationships between buyers and sellers and the exercise of power in distribution channels. The Munich researchers had a strong theoretical and empirical tradition of research into interaction and organizational behaviour in German industrial markets. The French research perspective was one of examining industrial marketing and buying behaviour from the standpoint of risk perception and risk handling. A common empirical objective of these researchers in collaborating in the IMP-project was to inter-nationalize their own national research bases.

The theoretical objectives also evolved from the distinct backgrounds of each research group as well as from the interaction which took place amongst the individual researchers as they began collaboration. Several theoretical perspectives were thus integrated into a common research programme.

Observations from previous research indicated that firms in industrial markets are working within a certain structure. It is not only a structure in the descriptive sense in which concentration and product differentiation are used to characterize the market structure in the usual industrial organization models. Instead it is a structure in the sense that the units (or companies) are individually related to each other so that their activities in the market are carried out within the framework of these relationships. The nature of these inter-organizational relationships are assumed to be influenced by the characteristics of the firms involved (technology,

size, etc.), of the products exchanged (complexity, etc.) and of the environment of the firms (competition, etc.).

It was also realized that by the adaptation and use of a conceptual framework already developed by the Uppsala group – the interaction approach – these relationships could be analysed. This framework was such as to accommodate the theoretical perspectives and to realize the theoretical objectives of all the other research groups. Therefore, the theoretical objective became to test the relevancy of this approach to international relationships between customers and suppliers in industrial markets. The objective was not to test a specified theory or hypothesis, it was more to test the usefulness of the whole approach. Development of theory was uppermost amongst the objectives of the research.

A general purpose of the IMP-project is to develop knowledge of buyer–seller relationships in industrial markets. Thus the research objects are *relationships* as we pointed out in the introduction. The central purpose is to describe and analyse these relationships. We have also noted that this required selection of a spread of relationships having different characteristics. We also aimed to investigate both specific relationships, as well as the generalized perceptions of those involved in relationships. This required both an international and technology range in the relationships studied.

A second objective of the project was to develop theory in the area of buyer–seller relationships. In line with the overall approach of the project, this was not attempted in any formalized manner to create *the* theory of the group. Instead it was the process of informal discussion of problems of methodology and data gathering as well as of conceptual and theoretical issues which aided the development of the theoretical position of the group.

Additionally, a number of sub-objectives were incorporated into the project to accommodate the special interests of different national groups and to meet the expectations of companies and sponsoring bodies participating in the study. Those objectives included: the identification of the special characteristics of inter-national marketing and purchasing, as experienced by companies in different countries and in different industries; an examination of the opportunities and difficulties which suppliers in each country encounter when exporting to each of the other four countries; a comparative analysis of the purchasing policies and procedures used in certain industries in each country and the extent to which buyers make different demands upon foreign suppliers as distinct from home suppliers; an analysis of the attitudes of buyers in each country to the marketing activities of suppliers from the other four countries; an examination of the organizational structures involved by companies in different countries when exporting to and buying from foreign markets.

Research Design

(a) Choice of Relationships to be Studied

It was necessary to impose two basic demands on the data collection in order to

study the nature of the relationships between buying and selling firms as well as to make a comparison of the handling of those relationships by different firms. Firstly, the study should deal primarily with actual relationships and not just with generalized approaches to markets. Secondly, the research should analyse these relationships in depth. At the same time, the analysis involves examination of the effect of variation within those factors which influence buyer–seller interaction. This study has concentrated on variation in three important areas;

Firstly, we have investigated relationships in varying *Environments* – specifically, in and between different countries.

Secondly, the study analysed relationships involving different *Company Factors* – particularly that of production technology.

Finally, we have varied *the elements which are exchanged* between the companies. This has taken place by analysing relationships involving different products.

Variations in these three factors have meant that we have examined relationships taking place within different *atmospheres,* for example with variation in closeness, co-operation, and power relations.

We may further explore the choice of relations to be studied by considering firstly the demands of scope in the research and secondly by examining the demands of depth in the investigation;

(i) The demands of scope The wish to have a sufficiently large number of relationships had an effect both in the number of countries involved and in the number of relationships to be studied in each country. As described earlier, researchers from Sweden, UK, and France had got into contact first and these countries automatically became involved in this way. An early decision was also that the project should be restricted to European countries to reduce the problems of co-ordinating contacts. Germany and Italy were considered to be interesting from both a marketing and a purchasing point of view from the original three countries. Efforts were therefore made in order to involve these countries. It was believed impossible to include more than five countries as this would have required a larger number of relationships to be studied in each country. The number of relationships in each country was therefore determined by the number of counterpart countries and the requirements of the technological spread.

The aim of achieving a technological spread was based firstly on a wish to study buyer–seller relationships in a range of industries which were a focus of interest for different members of the group. Also, it is held that the uncertainty and risk associated with different products by buying companies are crucial variables affecting inter-company relationships. Further, previous work by some members of the research group had suggested that certain characteristics of the product bought and the production technology of the customer had a significant effect upon the nature of the contacts between participating companies and on the [i]nformation exchanged between them. It had already been found that not only did different types of goods have differing frequencies in buying but that different [d]ecision-making processes were involved. Further, we expect the customer to

handle a relationship differently depending upon how well the desired functions of the product can be specified and measured in advance and depending on how crucial the product is to the production processes of the buying firm. In order to obtain variation in the difficulty of specifying technically complex products, three broad categories of industrial products were selected. These were raw and processed materials, components and parts and production equipment (capital goods). These categories are not viewed as being placed on a unidimensional scale of increasing complexity or difficulty in specification; rather it is necessary to look within each category for variation.

The variation with respect to how crucial the products are to the buyer was to be obtained by selecting customer firms with different production technologies. Three of the major types of production technology discussed by other researchers were chosen, as in Woodward (1965). The study focused on firms with varying systems of production which would be grouped under the headings of Unit and Small Volume, Batch and Mass Production, and finally Process Manufacture. Again this classification is not on a unidimensional scale. The two dimensions of supplier's product technology and customer's production technology were combined. Each dimension has three sub categories and this means that a nine-cell matrix was obtained from which companies would be chosen for analysis. A variation in the basic factors affecting relationships could therefore be obtained by choosing observations which were distributed between the cells. This matrix is illustrated in Figure 3.1. The use of the term *Choice Matrix is* intended to emphasize that no claim is made that a statistically significant sample of firms from within this population was aimed for.

Also, it should be stressed that the choice matrix is defined in such a way that only certain kinds of industrial markets are included. Both manufacturers and distributors may be considered as customers in industrial markets. However, in this study relationships are only dealt with between buyers and sellers where the buyer uses the product for his production (transformation and resale).

Furthermore, the aim was to study specific relationships which are important to one or both of the parties concerned, rather than where the buyer–seller relations are more anonymous in character. This occurs where the products are significant to the buyer in some respect, e.g. because of their high technology, high unit price, or their sensitive role in the production process. Similarly, relationships are likely to be important if the volume of transactions is large or if it accounts for a significant proportion of the parties' sales or purchases of that product.

These delimitations are depicted in Figure 3.2. **In** the vertical dimension our study deals with important relationships, in the horizontal dimension it deals with buyers who are manufacturers. The research focuses on relationships which are covered by the cell in the bottom left hand corner.

Another purpose of the choice matrix was to ensure that similar relationships formed the subject of interviews with both buying and selling firms. It would have been preferable to interview the actual buyer and seller counterparts to a specific relationship to get complementary data. However, this may have led to resistance from firms because it could interfere with their business with each other. It would

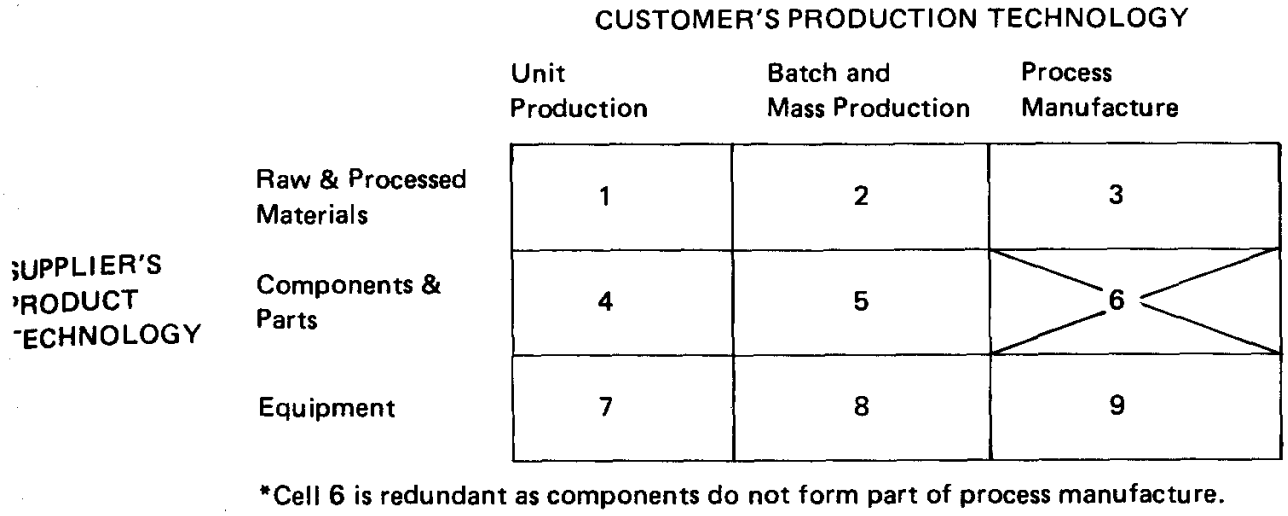


Figure 3.1 The choice matrix of suppliers and customers by product and production technology (Cell 6 is redundant as components do not form part of process manufacture)

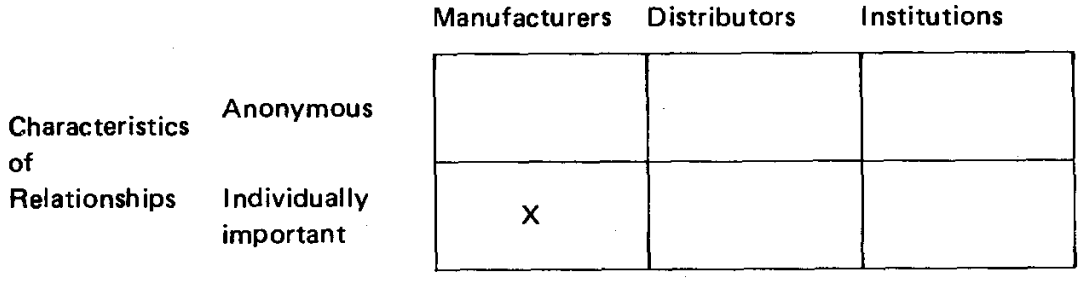


Figure 3.2 Matrix depicting the criteria for selecting important relationships with manufacturers

also have entailed exchanging information between countries. This would have breached an undertaking given to respondents that the names of their company and their customers or suppliers would not be disclosed by the researchers. Instead, it was possible to analyse similar, although not identical, relationships from both perspectives by using the choice matrix and ensuring similar coverage of all cells.

In producing the choice matrix of product and production technologies it was recognized that many products are not imported and exported by companies in each of the five countries. Therefore, a list of internationally traded industrial products was generated by the research team in order to guide each country in the choice of an identical or technologically comparable product category within the matrix cell.

There are, of course, many other factors which may influence the relationships and interaction between buyers and sellers: such factors are size and the structure and history of the companies concerned. These factors were not deliberately varied in the selection process because it would have imposed unrealistic demands on the number of relationships to be studied. The final choice of respondent companies was determined by the judgement of the researchers in each country with

the proviso that large and experienced companies were to be preferred because of the extensive amount of data required and the need for high response rates from companies. No attempt was made to construct a sample which could be naively construed to be representative of companies within an industry or in a country. No published data could generate a population of firms with exports and imports of specific products to the other countries and in which a direct and important relationship was in existence and about which companies would provide the required data.

It was envisaged that each country research group would collect data about 10 marketing orientated and 10 purchasing orientated relationships in each cell of the matrix. This gives a grand total of 800 relationships. Furthermore, the 10 in each cell should be equally distributed among the five countries. That means, for an example, that in cell 1 in UK, the UK research group should try to find two relationships between UK sellers and Italian customers, two between UK buyers and Italian sellers and so on.

(ii) The demands of depth The requirement for detailed information about complex and strategically sensitive relationships between customers and suppliers meant the use of personal interviews with marketing and purchasing personnel with direct involvement in the relationship. Furthermore, it was intended to make several interviews within every company, each dealing with a different relationship. In this way a comprehensive picture of the company's total relationships could be obtained by comparing several cases in the same firm. In order to plan the interview programme within a firm, and obtain background data on the whole firm, it was planned that an introductory interview would be held with a senior marketing or purchasing manager. This was to facilitate the subsequent identification of a sufficient number of respondents with the desired knowledge of the market. Thereafter, in-depth interviews were to be held with each respondent in turn about a specific relationship.

The actual content of the interviews is described in the section on Interview Design. From this section it will be clear that the data was collected dealing with past and present incidents in the relationship together with respondents' ideas of future events. This meant that only respondents with good knowledge of their counterpart customer or supplier would be able to provide the comprehensive picture required. Therefore, great care was needed in the selection of the respondents and one purpose of the manager interview was to ensure that knowledgeable respondents were obtained. As a result, a special journey was often made to each company just to undertake the manager interview.

(b) Main Outline of the Data Collection Procedure

The importance of carrying out the field research work simultaneously in all five countries was realized in order to ensure that economic, political, and market conditions would be consistent and capable of being monitored. The field research was therefore programmed to be completed within a 12 month period. Identical data collection procedures and interview schedules were to be used in

all five countries. These were based on master documents in the English language which were translated into the national language of the other four countries.

The data collection process for 800 interviews thus grew into a formidable task. Furthermore, the detailed character of the data required made it impossible to foresee all the variations likely to occur in different countries and industries. Thus the interviews could only be administered by researchers with a good understanding of the project and its background. Therefore, instead of pre-coded, structured interviews, a semi-structured approach was chosen in order to accommodate both qualitative and quantitative data and to allow for the following-up of unique but relevant issues. However, the interview schedules were carefully structured to follow a predetermined sequence of topics. They progressed from general to specific topics and catered for situations in which confidential data (such as on market shares and competition) could be collected at different points in the interview. One other important aspect of the design of the research was the requirement to obtain and sustain the interest of the respondents over a long interview session. This was accomplished by blending verbal questioning with self-administered data sheets and by alternating open ended with multiple choice questions.

The End of the Formulation Process

The incremental commitment approach underlines that research must be seen as a process. A typical characteristic of a process is that it is difficult to divide into distinctive parts. Thus when we talk about the formulation phase it is a reconstruction of what happened and the end of that phase is difficult to define exactly. Earlier, we have said that the main objectives and the main design were agreed in September 1976. However, a lot of the questions treated above were discussed at the next meeting in January 1977. This meant that the design phase, which is described next, took place at least partly in parallel with the formulation phase. This sequence however, is not so important. What is important is that after the first meeting the researchers felt it necessary to proceed to design the study in more detail, by developing questionnaires for example. The main reason for this need for `movement' was a feeling among all the participants that without progress to this next step the project could be one among many other inter-national projects that are discussed but never achieved. Everybody agreed therefore to go further without having an explicit or exact formulation of the project at that stage.

THE DESIGNING PHASE

Introduction

This research has centred on the analysis of industrial purchasing and marketing by taking an Interaction Approach. This involves the examination of both sides of the buyer-seller relationship involving the attitudes, approaches and actions of both parties. Emphasis is on the characteristics of relationships themselves,

employing a model of interaction, rather than emphasizing the separate marketing or purchasing processes. Other factors are also examined to determine their effect on the relationship, for example company policy, product characteristics and whether or not the companies are from the same country. The Interaction Model has been described in Chapter 2 and we can now consider how the design of the project and the research instruments were derived from this model.

The research requirements from the model were the examination of the following four areas;

1. The Interaction Process

Episodes – The interaction process consists of a large number of individual *episodes* of product–service, information, financial and social exchange. *Relationships* – Reactions to individual episodes are conditioned by the overall relationship existing between the companies. This consists of their experience of the relationship to date, the contact pattern which has been built up over time, the adaptations which have been made and the institutionalization of transactions and ways of working which have developed over time.

2. The Interacting Parties

The companies – Characteristics of the parties, such as organization structure, technology, and resources are related to the characteristics of the interaction process. So also are the companies' overall experiences, strategies and their objectives in general, in particular markets and in particular relationships.
The individuals – The age, background, and experience of those involved in the relationships will affect the interaction process. There is obviously an interplay between the situation and objectives of these individuals and those of the company.

3. The Interaction Environment

Market environment – The interaction process takes place within the buying and selling market structure and competitive situation. It also must be seen within the context of the companies general relationships with buyers or suppliers in that particular country. It should be re-emphasized that it is the participating individuals' perceptions of these factors which influence the interaction process.
More general environment – This includes such factors as governmental pressures as well as general cultural patterns in the particular countries of the parties.

4. The Atmosphere

This includes the general atmosphere of conflict or co-operation which. characterizes relations between the parties as well as the overall closeness between them and the respective power and dependence of the counterparts.

These factors influenced the general design of the data collection so that we aimed to vary the characteristics of the interaction process systematically by investigating relationships involving three different types of products exchanged; raw materials, components, and equipment. Similarly variation in the characteristics of the interacting parties was ensured by systematically varying the production technology of the purchasing firm; unit-production, large-batch-production, and process-production. Finally variations were created in the inter-action environment by studying companies from different countries.

These requirements from the research model constrained the direction of the empirical study. Another constraint was the aim of the research to analyse as far as possible both specific relationships between companies and their general perceptions of such relationships.

General Interview Procedure

We can now discuss the issues involved in translating the concepts on which the study was based into research procedures and instruments. The first issue is that of the design of a procedure for selecting the relationships to be investigated. The second is that of the design of the instruments which were used to collect data about the relationships, so that these instruments corresponded to the theoretical concepts of the model.

The first issue was primarily approached by using the choice matrix as a basis for selecting firms and thus ensuring systematic variations with respect to products exchanged, production technology of the buyer and countries of the interacting firms. Additionally, relationships in those firms were to be selected according to the criteria of their perceived importance by the company and the availability of a respondent who had personal and close experience of the relationship. This selection of important relationships required an intimate knowledge of the company's organization and strategy from a top management perspective. For this reason the first interview in a selected company was to be a *Marketing* or *Purchasing Manager Interview.*

The research in each company then continued with a number of *Marketing* or *Purchasing Operative Interviews* with respondents with direct personal experience of the relationships under study. The research was designed to facilitate *comparative* study of marketing and purchasing in and between five European countries. However, a large amount of data was required about each relationship and it was found that individual `Operatives' had experience from relationships with only one or a few countries. This meant that it was necessary to restrict individual operative interviews to a relationship in one country to ensure interviews of reasonable length based on personal experience. Comparisons between the five countries were therefore to be made indirectly using information from different respondents. As the research was built on the premise that respondents' views of marketing and purchasing in a particular country would be conditioned by their background and experience, it was necessary to collect such information about the respondents. The particular relationship to be examined in

each interview was to be decided by the respondent and the interviewer together as one which was of major importance, which usually meant the largest in volume, and one of which the respondent had personal knowledge.

Operationalization of the Variables

In several respects the theoretical model was not precisely developed at the stage of questionnaire design and the aim of the empirical research was to develop it further. This meant that the interviews had to be relatively unstructured with regard to those aspects. In other areas the theoretical problems were not so large and it was possible to design very well-structured, self-administered questionnaires. Thus, the interview procedure was to comprise questioning of a very diverse character. It might be argued that this is an indication of a lack of development of the theoretical structure. However, with the differences in back-ground and objectives of the research groups it would not have been possible to agree on a very precise and detailed theoretical model without very lengthy theoretical developments and discussions, if it had been possible at all. Because of this, we agreed to make some parts of the interviews as quite open questions in order to record the richness of the real relationships and to leave several problems of definitions and scaling etc, to later stages in the research process.

The content of the interviews is examined in an appendix to this chapter. This describes the main groups of variables included in the theoretical model and examines how data corresponding to these variables was obtained by direct questioning, indirect questioning, or interpretation of groups of questions.

The End of the Design Phase

The process of questionnaire design was completed immediately after the meeting in January 1977. Up to this meeting, preliminary designs for the questionnaires had been tested with respondents in some of the countries. The final questionnaires comprised the following:

1. Manager Questionnaire
2. Operative Questionnaire
3. Statements Questionnaire
4. Background and Experience Questionnaire
5. Interviewer Questionnaire.

The first four questionnaires were designed in one marketing and one purchasing version which were to correspond closely to each other. The fifth questionnaire, which has not been mentioned above, was designed-to make it possible to evaluate the interviews. It comprised a number of questions to the interviewer about his opinions of the success of the interview, the quality of the data obtained and the characteristics and level of interest of the interviewee.

Questionnaires were then translated from the English master copies into each of

the other four languages. This process required considerable checking between the researchers to avoid problems of different meaning of the same basic question in different languages.

The design stage was similar to the previous stage in that fixed deadlines were set for the completion of questionnaire design. This meant that the issue of forward movement in the project made it necessary to restrict the time devoted to improving the questionnaires. This issue has one important theoretical and one practical aspect which are now discussed.

Firstly, we shared a problem with all researchers who are attempting to combine the development of theory with empirical study. The lack of pre-vision in our theoretical model made it difficult to operationalize all our concepts in the form of well structured questions on all aspects. To do this would have required a very long process of theoretical development with the consequent difficulties in achieving agreement on such an all-embracing theoretical model. Instead we proceeded incrementally; after outlining the theoretical structure we designed questionnaires with a large section of open ended questions which would require considerable interpretation by the interviewers. This meant that in later stages we would have to develop the theoretical structure further, define and scale a number of variables better, and base the final coding of those variables on the interviewers' interpretations of the answers on the open questions.

Secondly, the balancing of movement forwards in relation to penetration of the problems can also be seen in the form of the questionnaires. It was required that they give information on a large number of aspects of relationships. It was also required that the interviews should not take longer than approximately two hours for each relationship. This was considered the most time that could reasonably be expected from interviewees. Finally it was required that the questionnaires should be suitable for a wide range of relationships, for example dealing with materials, components as well as equipment. These requirements posed a number of complex practical design problems and it is quite possible that the questionnaire might have been improved by still more design work. Several versions of the questionnaires were designed and examined and they were pre-tested in three countries. Nevertheless systematic pre-testing in diverse types of relationships would probably have improved the usefulness of the questionnaires, for instance with regard to equipment interviews. However, such improvements would have taken a lot of time and might have resulted in loss of motivation.

The most significant aspect of the design phase however, was the production of these questionnaires which were agreed by all members of the group and available for use in all five languages. The issues which arose in use of the questionnaires is discussed in the next section.

THE COMPLETION PHASE

Introduction

This phase comprises the gathering of data throughout the five countries, using

the questionnaires described in the previous section. It was during this phase that some of the problems of co-ordinating an international project of this size became apparent. However, one of the strengths of the project was the use of researchers operating in their own countries and languages. This involved the delegation of the research task to individual groups in each country. This delegation was within the constraints of the choice matrix and questionnaire design discussed earlier. The research procedure within each country differed somewhat according to the avail-able resources.

In Sweden, UK, and Italy the interviews were all carried out by the IMP researchers. In France the interviews were carried out partly by the IMP researchers, partly by other researchers within the institute, and partly by a professional agency (Carec). The researcher in Germany did some of the interviews by himself, but most of them were carried out by a small number of postgraduate students engaged on the project.

Completion Problems

The differences in available resources meant for example that the Swedish group were able to proceed with interviews much faster than the interviewing in Italy. This led to early problems in the co-ordination of samples. Each country circulated to the other researchers details of interviews carried out including company size, product technology, types of customers, and countries covered. Company names were not circulated to preserve the confidentiality promised to companies. The aim of this circulation of information was to allow each country to relate its own interviewing to the emerging sample from all of the countries.

This system was not fully effective because of the different speed with which interviews took place. Thus some countries had parts of the choice matrix full before others had started interviewing in these areas. This led to some difficulty in obtaining interviews within similar industries in all countries. This problem was added to by variations between the pattern of trade in each country. Thus it was relatively easier to find companies and respondents for component sales from the UK to Germany than it was for raw materials. Similarly, it was relatively difficult to find Italian companies with component sales to Sweden etc. Another issue in the interviewing process was the relative ease in the UK with which marketing interviews could be obtained when compared to purchasing interviews. It was more difficult to ascertain the pattern of a company's purchasing in advance of interview than it was their pattern of sales. Access to companies was quite easy and managers were usually most willing to give permission to interview. It was planned that there should be a maximum of ten operative interviews in each firm. This was to achieve a balance between a thorough analysis of the firm's operations whilst avoiding over-concentration. Thus, for example, a marketing company could provide five operative interviews concerning the marketing of components to companies in the shipbuilding industry (Cell 4 of the choice matrix) i.e. one interview per country. It could also be used for five interviews covering the marketing of components to the automotive industry (Cell 5 of the matrix).

Table 3.1 The distribution of completed operative interviews in relation to the choice matrix

	MARKETING STUDY				PURCHASING STUDY			
	Operative interviews							
	Unit	Mass	Process	Total	Unit	Mass	Process	Total
Raw materials	39	78	77	194	28	63	61	152
Components	76	94	—	170	53	75	—	128
Equipment	38	44	56	138	20	42	34	97
Total	153	216	133	502	101	182	95	376

Similarly, a purchasing company could provide, for example, a maximum of five interviews about buying equipment (Cell 8) and five about buying components.

The aim was to achieve two interviews regarding each of the five country markets in each cell. This added to a total of 50 interviews in each cell of the matrix.

The actual outcome of the selection procedure is shown in Table 3.1. As can be seen from the table, there is a variation around the average of 54.6 relationships per cell (from 20 to 94). However, these variations do not cause any analytical difficulties *per se*. As stated above, the ambition has rather been to cover many different situations. The small number in the cells on the `Equipment' row was due to difficulties in obtaining interviews with the technical design and manufacturing executives often involved in these purchases. As the total number of interviews on each row, i.e. with respect to each major product category, is rather similar, the objective of getting a good spread of the observations is considered to have been satisfactorily attained.

There were also some variations between the countries with respect to the number of interviews made in each company, as can be seen in Table 3.2. Thus, on average it has been possible to make more interviews per company in Sweden than in the other countries. This is probably due to the fact that the definition of the choice matrix in terms of products more closely reflects the Swedish trade patterns than those of the other countries. It probably is also related to the general international orientation of industry in a small country like Sweden. At the other extreme, the UK data reflects the fact that the European market is not so well

Table 3.2 The distribution of completed operative interviews in relation to country and number of firms

	MARKETING STUDY Interviews/Firms		Ratio *I/F*	PURCHASING STUDY Interviews/Firms		Ratio *I/F*
France	160	51	3.1	100	29	3.4
Germany	82	31	2.6	79	39	1.8
Italy	69	29	2.4	51	18	2.8
Sweden	91	23	4.0	89	20	4.5
United Kingdom	100	49	2.0	57	31	1.8

developed as is the Commonwealth for many UK firms. Thus, many of the UK firms did not have significant sales in all of the other four countries.

Evaluation

The conclusion of the data gathering process allowed an evaluation of any inadequacies in either the questionnaire design or research procedure. This evaluation can be outlined as follows:

First there were a number of problems in relation to the general interview and selection procedure. To start with we had distinguished between manager and operative interviews with the expectation that managers in higher positions were best suited to ensure overview questions and operatives were more suitable for interviews about specific relationships. In several firms however the managers were better suited for the `operative' interviews. This is understandable in that we were aiming to interview about important relationships where the manager was more likely to be involved. Correspondingly in some cases marketing services staff were best suited to the overview `manager' interviews and selection of 'operative' respondents. Thus, in interpreting the interviews it is important to keep in mind that in a small number of cases `operatives' are not necessarily on a lower level than `managers' in the organizational hierarchies.

The interviewing of one person to analyse a relationship was necessary in order to cover a wide spectrum of technology, market, and relationship variables. It meant, however, that the information which could be obtained was limited by the knowledge of this one individual. Thus, a number of respondents often had difficulty in describing market structure and market shares and this formed an interesting finding. The problem of reliance on one respondent was particularly relevant where a marketing company employed a sales subsidiary or agent in a certain market. In this circumstance, it was possible that a headquarters respondent had a limited knowledge of the day-to-day relationship between his sales subsidiary and the customer. It was found necessary to delete a number of these interviews from the final sample, where the respondent was not closely enough involved in the relationship.

The selection of respondents caused some problems in the case of purchasing operative interviews as far as equipment products were concerned. It was found that buyers were able to provide all the required information for raw material and component purchasing. However, it was often necessary in the case of equipment purchases to obtain an interview with, for example, a project or other engineer in order to acquire a full picture of the relationship.

The problem of respondents providing quantitative information during the course of an interview had been foreseen. For this reason, manager questionnaires contained an appendix covering quantitative data for completion by the respondent after the interview. The non-availability of some of this data still caused problems. The lack of information possessed by some respondents formed an interesting finding.

Problems of obtaining interviews in similar industries in each country have already been mentioned. One explanation is, of course, the differences in industrial structure and foreign trade structure between the five countries.

In general, it was found difficult to co-ordinate the data gathering process between the five countries. The lack of a group meeting for nine months during the data gathering phase meant that it was not possible to review the progress of interviews at frequent intervals. In consequence, the data gathering process was prolonged as individual researchers had to make additional interviews. Also, it was found difficult to achieve an even distribution of interviews within the choice matrix.

A number of problems were encountered which related to the design of the questionnaire. Thus, whereas the questionnaire was very well adapted to the stable and continuous materials and components relationships it did not work as well in the equipment relationship which vary in intensity depending on the timing of the transactions. Also, in spite of our emphasis on the social exchange process right from the beginning of the project, we could only infer the social exchange of the relationships very indirectly. The reliability of our social exchange data is not as high as would be desirable, considering the importance of the concept. Similar reliability problems are the result of the very indirect measures of a number of variables.

Considering the overall validity of the empirical research, we can conclude that there are some problems due to the respondents' lack of knowledge in some cases. Also, the validity of equipment interview data is probably somewhat lower than the others. On the whole, however, we conclude that the validity of the research is at a level which forms a good basis for further analysis and conclusions.

Conclusions

The data gathering was largely completed by mid-1978 when a total of about 900 operative interviews had been carried out. The research had been based on the incremental commitment approach which had emphasized the problems of maintaining and developing commitment as well as achieving a balance between the optimal design of the project and the time necessary to achieve that design. These problems were particularly acute in this case of a large, relatively heterogeneous research group in five countries. The group was very concerned to maintain the momentum of the project from the design through and past the completion phase.

The approach was vindicated in achieving the fieldwork target on the basis of common questionnaires in five languages and countries. This was achieved with the decentralized decision making of the group which was considered essential to maintain the involvement of all participants. The project's completion or interviewing phase took place in parallel with the development of ways of analysing the data which was collected. It is now necessary to turn to a description of this Analysing Phase.

THE ANALYSING PHASE

The Evolution of an Organization

The collected data about a buyer–seller relationship from each interview has certain characteristics which have special implications for the methods which have to be used for analysis. Some data from manager and operative interviews is of a `soft' nature which is descriptive and explanatory of a specific relationship. Other data is applicable to several relationships studied in that company. Some data was collected through open ended questions and it was not possible to record this directly onto readily codable interview schedules. Such data is of considerable depth and richness of facets of inter-company relationships which were not at all predicted when the study was originally designed. This makes special demands on the way such data should be handled. It was necessary to make primary interpretation and synthesis of such data before recording it in a standardized way. Other data of a quantitative nature or in a readily codable form was immediately recorded on interview schedules for subsequent computer analysis.

The discussion of the analysis had of course started at an early phase of the research. One of the main design decisions, which was to include the statements questionnaire had, for example, been partly based on the analysis issue. The major reason for including the statements questionnaire was to analyse respondents' generalized perceptions about relationships. However, they had the additional advantage of being relatively easy to analyse and therefore suitable for a rapid response of some of the research results to interviewed firms. Another early discussed question was how the soft data that was collected should be documented and analysed. The writing of cases based on one or several relationships was believed to be one possible way. The problems connected with the analysis had thus been discussed early in the research process but a more systematic discussion was opened at the meeting in November 1977. The main result of that discussion was the development of an organization for the analysis of data. This organization consisted of a work division where certain research tasks were centralized and other decentralized to the individual researcher. The centralized tasks were (1) the development of coding manuals and (2) the computer analysis of the statements. The tasks which were decentralized were (1) the case analysis, (2) the actual coding work, and (3) the theme analysis. All these tasks will now be discussed in more detail.

The Coding Manuals and the Coding Work

Two important questions about data analysis which were tackled were as follows:

(a) How can we ensure that data from all the countries is recorded in a similar way?

(b) How can we make it possible for researchers to gain access to the data from all the participating countries?

The obvious solution to the second problem was to establish a joint data bank for all the participating countries. In the data bank we did not just wish to have hard data but we also wanted to have as much as possible of the soft data. A reason-able solution to the first problem seemed to be to construct a *Coding Manual* which would allow answers to many of the open ended questions to be structured. It was possible to produce a manual when a large number of interviews had been carried out. Answer categories in the form of nominal scales were constructed for most of the open ended questions. Doing this can be seen as a second operationalization stage and the categories had, of course, to be constructed in accordance with our theoretical concepts. The task of devising the coding manual was carried out with representatives from most of the research groups. A special meeting was held to complete this work in the early spring of 1979. In part, the coding manual can be seen as an interpretation of the interview made by the researcher who has conducted the interview. This could only be carried out by the researcher concerned and all the coding work had therefore to be done by those who had made the interviews.

Therefore, the data bank includes quantitative data, interpreted data and summarised descriptions of background and explanatory data for each interview. It is built up in the same way as the interviews. One 'pack' within the data bank consists of a manager interview, an operative interview, data on the respondent's education and experience and an attitude interview. In total, a complete pack consists of 348 variables and the total number of packs is 878. This gives an indication of the size of the data bank. The quantitative variables of the data bank (e.g. company sales) are usually defined both in absolute terms and in categories. The non-quantitative variables (e.g. difficulties in specifying product characteristics) are defined using nominal scales.

Case Analysis

The case analyses are carried out from raw and interpreted data. They deal primarily with aspects of inter-organizational relationships relevant to one company. They allow comparisons to be made of different relationships within one company and with several customers or suppliers. Such comparisons may be by country of the partner to the relationship. Others examine different types of relationships with various partners in a particular country. Alternatively, some cases allow concentration on one important and interesting relationship and permit simultaneous consideration of the many variables impinging on that relationship (e.g. market structure, technology and cultural factors).

The analysis of cases serves two purposes; first, each case can lead to the generation of hypotheses and ideas for subsequent examination of data about

other relationships recorded in the data bank. Second, case studies can be chosen which represent relationships encountered in each cell of the choice matrix and which cover various products and production technologies. This may lead to an improved model (or models) of interaction which encompass the spread of situations relevant to the matrix.

Statement Analysis

The attitude questionnaire consisted of over 60 statements regarding the nature and characteristics of relationships with counterparts from a certain country. The respondent was asked to give his or her judgement on a five point scale of the correctness of each statement. For example, one statement was formulated `We can always trust customers or suppliers to keep us fully informed of any developments that may affect us'. The respondent was asked to answer if he or she strongly agreed, partly agreed, was uncertain, partly disagreed, or strongly disagreed with that statement with regard to suppliers or customers in a certain country.

These statements could be easily analysed in a computer and this work was centralized at UMIST. One researcher there took on the responsibility of putting the data from all the five countries together in a master document. In order to get more comprehensive measures of the answers the five answer categories described above were quantified and given the weights +2, + 1, 0, -1, and -2. Averages and variance measures could in this way be computed as well as the distributions of the answers. This data allowed analysis in several ways, for example in relation to country, technology of the firm, background of the respondent and so on. As a first step each country agreed to make a separate analysis looking at the total data from the viewpoint of their country. These analyses are published separately, Hallen (1980), Kutschker and Kirsch (1979), Perrin (1979), and Turnbull and Cunningham (1980).

Theme Analyses

Case analyses and country analyses of the statements are just some preliminary steps in the analysis phase. The next step we call `Theme Analysis' and this means that the data is analysed in a more thorough way from a theoretical point of view. The aim is to exploit different parts of the data to achieve a fuller understanding of various aspects of inter-company relationships and to further develop theory in the area. A number of early themes based on case analyses are presented later on in this book.

There is no overall plan for the theme analysis. This is rather typical of the incremental commitment approach and it also represents a view that it is more productive to try to co-ordinate this creative process rather than attempt to plan or control it. The analysis questions were discussed very early in the project. However, there was little motivation amongst the researchers to plan the details of

this later analysis at that time. We can expect that the analysis of the data will hopefully continue for a considerable time. It is impossible to forecast the different paths this will take as interesting directions are emerging as the analysis process develops.

SOME PROBLEMS IN CARRYING OUT AN INTERNATIONAL RESEARCH PROJECT

This project has been based on something over four years' collaborative research by workers from five European countries. Collaborative research often poses difficulty where the workers are separated by departmental boundaries or are in separate institutions. In this case, the workers were of five nationalities, from seven separate institutions and with very different backgrounds. Because of this, the problems of collaboration may be expected to be extreme and it may be useful for other collaborative projects if we set out some of the difficulties we faced and the ways in which we tried to overcome some of them.

Initial Objectives

We, like all researchers, approached the project with quite different objectives from each other. We had, however, several important things in common. Firstly, we all had a background in industrial marketing and a belief that industrial marketing could only properly be analysed by examining both the buying and the selling process. This meant that we had a common approach to our subject. Differences were in the extent to which we were interested in the interaction of buying and selling companies *per se,* or whether we were interested in the problems of buyer—seller relationships in an international context, or whether we were concerned about the problems of marketing organization and strategy from perhaps a more managerial perspective. The ideas which we had in common enabled us to start work, and gave sufficient commonality of view point to push our differences into the background. During the time of the project, these differences in interest showed up in difficulties and disagreements over questionnaire design and perhaps in the presentation of results. It is perhaps inevitable that discussions on a project like this concentrate on what is to be done, rather than why it is to be done.

Theoretical Position

It has been said that we had common view of industrial buying and selling. This did not mean that we had a common *theory* of industrial buying and selling. There is a parallel between our differences in interest, above, and differences in theoretical position. Here again, there was a tendency to avoid discussion of theoretical issues. This was perhaps in order to avoid what we all regarded as inevitable disagreement if any one of us tried to impose a common theoretical

position. In a similar way to the objectives above, the project proceeded with more emphasis on keeping up the dynamic of the process, rather than achieving perfection at each stage. We have earlier referred to this as the incremental commitment approach. Thus, we accepted some differences in theory, but worked on the basis of what we could agree about, rather than trying for complete agreement on all aspects of theory. Similarly, we designed questionnaires on the basis of setting objectives in only the broadest sense. We believed that it was necessary to do this. We were all conscious of the difficulties of communication. This means that it would have been possible on the occasions when we did meet to have discussed and failed to reach agreement, thereby postponing action perhaps indefinitely. For this reason we tried to achieve as much consensus as possible and then took and accepted the only decisions which seemed acceptable to us all. This, although disguising some problems, did allow the project to start and to maintain its momentum.

Communication

We found relatively little difficulty in arranging meetings and in producing work, e.g. questionnaire design. It did seem difficult, on the other hand, to achieve a *dialogue* between researchers in the period between meetings. Thus, individuals would be delegated to carry out a piece of research and to circulate this for comments. The production of the work was easier to achieve than were the comments. Perhaps because of pressure of our own delegated work, we were less effective than we would have liked in discussing other people's contributions. This led to problems at subsequent meetings, when we would comment on work already done and perhaps criticize the author. Whereas, if this had been done by mail or telephone, then the author would have had the opportunity to revise his work. A second aspect of communication is the problem of organizing effective meetings. One of the functions of our research meetings was to maintain enthusiasm, cement the social relationships between us and to reach decisions on the next stage of the work. Meetings were generally effective in generating enthusiasm and enabling us to get to know each other better. They were held approximately at four to five month intervals. The generation of a good social relationship between the parties was considered vital. If for no other reason, this introduces an element of `moral blackmail' in the commitments which we made to each other. There was a tendency to have meetings which were too short. At most meetings, the initial stages were *often* marked by violent disagreement. These disagreements concerned all aspects of the work-policy, details of future work, adequacy of individual contributions, intentions of different people, etc., etc. During most meetings, these disagreements were followed by a period of reconciliation and reconstruction as we found areas of compromise. Towards the end of the meetings, there would be a period of hectic decision-making where researchers, on the basis of their renewed enthusiasm would make promises, and set deadlines for the next meeting. The need to take decisions and set deadlines and the wave of enthusiasm often led to

unrealistic deadlines. The meetings would usually finish in a mood of close friendship and great expectations. This process occurred frequently and almost certainly we all had an idea of the length of time involved in the meetings and therefore, the time we could disagree and the time when we had to achieve agreement. Those meetings which were not long enough for this process were the most unsatisfactory. Generally we found that a meeting of 12 people to discuss the project needed to be at least three working days long.

Allocation of Work

Not only were the researchers from different backgrounds, they were also at very different career positions. These ranged from that of research assistant to professor. The differences in career position clearly affected the expectations from the project. They also affected workload, as did the positions of individuals in their respective institutions. It was very difficult throughout the project for us to appreciate these differences. Thus, for some of the researchers, the project was to provide the basis of their Ph.D thesis. For others, a successful publication under their authorship was vital for continued tenure in their institutions. Some of the researchers had heavy teaching loads. Others were engaged full time on the project. Not only were these commitments different, they were often difficult to predict over the period of the project. This led to problems when deadlines were not met. Another problem, which perhaps should have been approached more realistically, was the allocation of work between countries. The research team in the UK was of four people for much of the project. In Italy it was one person. Similarly, in Sweden there were, at one time, five people engaged in the project, whilst Germany had three and in France the numbers oscillated between one and four. Throughout the project, there was a tendency to divide work on a country basis, therefore by implication expecting one person to accomplish the work of five in some cases. This led to difficulties with deadlines. Also, the different sizes of the group, and the tendency to come to country decisions before meetings often led to difficulties for those researchers from the `smaller' countries. The larger teams had a tendency to take the initiative and were also more likely to be doing work which affected the outcome of work from the other countries. This led to concern as to the overall control of the project, particularly when the questions of outcome of the project arose. This is further discussed below.

Language

It was quickly established that the working language for the project should be English. This was necessary for the point of view of ultimate publication and also because English was the only language which we all had in common. Language caused difficulties in meetings. There is a natural advantage in argument for those using their native language. Additionally, use of a foreign language over a long meeting can prove very tiring. Although this did not appear to be a major

problem, it may have been that those whose English was less than perfect, often felt frustrated that their points had not been adequately heard and that they had not been a full party to discussions. We were fortunate in that although there was some age discrepancy between members of the group, we were all from a somewhat similar background. Thus we were all products of a university education, which had covered similar areas; we were all involved in teaching the same subjects; we had all been brought up on the same literature and all had quite a lot of experience of working with `foreigners' on a European scale. National stereotypes often figured in our jokes about each other. On the other hand, it was very difficult to identify cultural differences which affected the project. Much more important were the factors of our own short-term individual experience.

Output

The questionnaires for the project were produced through an iterative process of discussion, delegation to work teams, and further discussion. Generally, this was efficiently done, by the setting of fixed deadlines for the production of individual questionnaires. The quality of this work is perhaps best indicated by the almost complete lack of criticism of questionnaires which subsequently arose. Similarly, the coding and data analysis procedures were designed by delegation, discussion, and deadlines. The analysis of data was carried out at a central source by a delegated individual. This was one of the examples of differential workload amongst the group. It was very difficult for those of the group not involved in the process of data analysis to comprehend the scale of the task. Similarly, the field work in each case placed a disproportionately heavy load on different members of the team. The design of questionnaires, the coding and the analysis of data were preliminaries to the written output of the project. It was intended that this output should be in the form of books and editors were assigned to each book. It was when the research was to be crystallized into output form that some of the inadequacies of our earlier work and the nature of issues which had not been perhaps fully discussed became apparent. Problems arose because of the difficulties of delegating authority to an editor and the wish to retain a say in the nature of a book by the rest of the group. Problems arose over writing deadlines, which perhaps had much to do with other workloads and language difficulties. Problems also arose because some individual country workers had responsibilities to produce reports back to their own sponsors. Additionally, problems arose through the sheer difficulty of writing books. We had never questioned our individual writing capability and it was when actually trying to construct a complex piece of work, drawing on several authors, that issues of structure and content became extreme.

The research project had operated for one and a half years before the issue of authorship was raised. This caused some problems because of the value to some research members of having individually named parts of a work for their own qualification or tenure requirements. Others were concerned that all publications

should be on a joint name basis under the auspices of the IMP-project. Perhaps questions of authorship are relatively subordinate to the major problem of constructing the written output of a project. Decisions on the nature of the output have to be taken as the project progresses and it was clear that inadequate thought had been given to the nature of the output before decisions were taken. Perhaps there was also a second issue. The task of designing a project, sampling, collecting, and analysing data were exhausting. However, the wish to produce the data and the interdependence of all members on each other's data provided the strongest bond between us. Once that data was acquired, we were able to judge its quality. There was an inevitable sense of a task completed and also the realization that this data could be used in many different ways for both individual and group purposes. It was at this time that the question of the intentions of different members of the group became of some importance. There was a natural fear on the part of some group members that others may wish to use the data for their own analysis, without contributing to group analysis.

Thus, the major problems of the project arose at the output stage. This was a combination of the magnitude of the task of writing the output together with the realization of the ways in which the data could be used for different purposes, and because of the lessened interdependency of the group. That these problems were overcome is evidenced by the production of this and other books.

APPENDIX: OPERATIONALIZATION OF THE VARIABLES

Characteristics of the Interaction Process

This appendix describes the way in which the variables in the interaction model were operationalized for the purposes of questionnaire design.

Exchange Episodes

The *product is* a principal element which is exchanged. The salient characteristics of the product exchange were identified in the interviews in order to characterize the product with regard to technical complexity and relative difficulty in specifying its design, production and performance features. The frequency of deliveries and the importance of delivery timing was noted. The `essentiality' of the product to the customer was assessed according to judgements of how critical were deliveries and the consequences to the customer of failure of the product to perform or to be delivered in time.

Another element of exchange is *information.* Data was collected on the patterns of contacts between the respondent and the counterpart, his contacts within his own company and the contacts of others in his own company with the partner company. This covered frequency, form (visit, telephone, etc.) topic (price, deliveries, etc.) and who was contacted. Questions were also asked about the type of information requested from and provided by the counterpart.

questionnaire as noted above. They were also explored by open-ended questions to the managers about problems in each of the countries with regard to government actions, cultural differences, etc.

The Atmosphere

The level and nature of conflict or co-operation between the companies was indirectly dealt with in the discussion of adaptations, in the impressionistic characterization of the counterpart and in a series of open questions about the history of the relationship. Specifically, the analysis of any crises was to highlight the existence and handling of conflict or co-operation. The closeness of the relationship was also derived from questions about the history and also from the mapping of the contacts.

The power dependence relation was to be directly described by means of the shares the two parties had of each other's business and by the number and strength of alternatives. Qualitative measures of power dependence relations were derived from discussions of the criticality of the relationship, e.g. the overall importance of this relationship to the company and the costs and difficulties of making a change to another one.

Chapter 4

Company Cases

INTRODUCTION

Our theoretical and methodological approach has been described in the preceding chapters. It is now appropriate to present some of the data which has been collected and partly analysed. In accordance with our methodological approach, one of the ways of analysing the data has been the use of company cases. Some of these cases will be presented in this chapter.

The use of company cases is intended to serve three purposes:

(i) In all the cases some relationships between selling and buying companies are described and analysed in accordance with the theoretical model presented in chapter two. Thus the cases can be seen as illustrations to how the model can be used: additionally, they are also developing the model by relating the variables to each other. In this way the model is gradually reaching an explanatory level.

(ii) All the company cases contain data about different industrial markets, therefore, they can be seen as pictures of small parts of these markets. If all the cases are seen together they form a more comprehensive picture of how industrial markets work.

(iii) Almost all cases focus on a specific company's situation in relation to certain of its customers or suppliers and describe how the relationships develop and are handled. In this way the cases give a special insight and relevant illustration of what kind of marketing and purchasing problems these kinds of companies encounter.

The chapter consists of twenty-three company cases grouped into six sections. The grouping has been carried out in accordance with our choice matrix. The three product rows have been used to group the marketing case and the three manufacturing technology columns to group the purchasing cases. Thus, the six sections are as follows;

1. Marketing of raw and processed materials
2. Marketing of components
3. Marketing of equipment
4. Purchasing by companies with unit-production technology
5. Purchasing by companies with mass-production technology
6. Purchasing by companies with process-production technology

The *monetary* element in the interaction was assessed by such measures as the value and volume of business placed with the counterpart during the history of the relationship and if any special financial procedures had been developed.

The *social* exchange between the parties could only be inferred from open ended discussion with the respondents on such topics as the existence of trust, confidence, personal friendships, and social contacts in their dealings with the particular customer. Additional data in social exchange emerged in examining the contact patterns between the parties and the ways in which crises and difficulties between them might have been affected by the quality of personal relationships at that time.

Relationships

Respondents were questioned about the *adaptations* made, proposed or discussed by the parties. The reason for the initiatives and who was involved in them were also recorded. This comprised questions about modifications of product specifications, product design, and manufacturing processes, and planning, delivery procedure, and stock holding. Adaptations covered also included those of administrative and finance procedures.

In order to examine the process of institutionalization of procedures a mapping of the interfunctional and interpersonal contact patterns between the companies was made. The impersonal institutionalization of business contacts through terms of trade, contract procedures and protocols emerged indirectly through open-ended discussions.

Characteristics of the Interacting Parties

The Companies

In the interview with the manager various data on the respondent firm was obtained. This included the size of the firm, the organization of marketing (purchasing) in the company, the product range and the relative importance of different products to the company, together with the types of customers, and market segments, the relative importance of the five-country markets to the company and the strategy and organization of marketing to or buying from each country. Further information on the respondent company was collected in operative interviews. This information referred to the specific relationship and comprised questions about the use and responsibilities of any agents or subsidiaries which were involved.

The operative respondents were asked direct questions about the partner in terms of size (sales value and number of employees), production technology and degree of national or international orientation. Additionally, respondents were asked to outline the general characteristics of the counterparts as if describing it to a colleague who was to become involved in dealing with it. A number of structured questions were formulated regarding the counterpart's organization and competence.

The Individuals

It was obviously not possible, in this type of project, to interview every individual in each company who interacts with the counterpart company. Instead, a mapping technique was devised in the operative interviews to identify the functions, roles and status levels of each person involved in the interaction process. It was also decided to collect data about each individual respondent in the interviews. Their education, qualifications, job experience, and language competence was obtained with a self-administered questionnaire.

Characteristics of the Interaction Environment

Market Environment

Data about the market environment was collected in several ways. First the managers were asked to express their general views on the opportunities and risks, market structure, and competitive situation in the market. The operatives were also asked structured questions about the number and shares of suppliers and customers in the product market in the country.

An important factor behind the analysis of a particular relationship is the general character of all the companies' relationships in the market. In order to get a well-developed picture of these generalized relationships a self-administered questionnaire was designed with a series of attitude statements against which the respondents recorded the strength of their agreement or disagreement on a five-point attitudinal scale. The set of statements had been derived from the interaction model and from pilot interviews and seminar discussions with marketing and purchasing personnel in industry. The statement questionnaires used were common to all countries (apart from their being translated into the local national language) and were, as far as possible, similar for both buyers and sellers. This latter requirement was to facilitate comparative analysis of buyers' and sellers' attitudes.

The attitude statements attempted to encompass important perceptions of interaction with companies in general, in one of the five countries with which the respondent had experience of dealing. This country was the same one as that of the company in his main interview. The content and structure were designed to correspond closely to the interaction model covering the main groups of variables comprising:

(a) general characteristics of the counterpart companies in the country
(b) general characteristics of interaction processes with companies in the country, and
(c) the environmental factors operating in the country.

More General Environmental Factors

General environmental factors were to some extent covered in the statement

questionnaire as noted above. They were also explored by open-ended questions to the managers about problems in each of the countries with regard to government actions, cultural differences, etc.

The Atmosphere

The level and nature of conflict or co-operation between the companies was indirectly dealt with in the discussion of adaptations, in the impressionistic characterization of the counterpart and in a series of open questions about the history of the relationship. Specifically, the analysis of any crises was to highlight the existence and handling of conflict or co-operation. The closeness of the relationship was also derived from questions about the history and also from the mapping of the contacts.

The power dependence relation was to be directly described by means of the shares the two parties had of each other's business and by the number and strength of alternatives. Qualitative measures of power dependence relations were derived from discussions of the criticality of the relationship, e.g. the overall importance of this relationship to the company and the costs and difficulties of making a change to another one.

Chapter 4

Company Cases

INTRODUCTION

Our theoretical and methodological approach has been described in the preceding chapters. It is now appropriate to present some of the data which has been collected and partly analysed. In accordance with our methodological approach, one of the ways of analysing the data has been the use of company cases. Some of these cases will be presented in this chapter.

The use of company cases is intended to serve three purposes:

(i) In all the cases some relationships between selling and buying companies are described and analysed in accordance with the theoretical model presented in chapter two. Thus the cases can be seen as illustrations to how the model can be used: additionally, they are also developing the model by relating the variables to each other. In this way the model is gradually reaching an explanatory level.

(ii) All the company cases contain data about different industrial markets, therefore, they can be seen as pictures of small parts of these markets. If all the cases are seen together they form a more comprehensive picture of how industrial markets work.

(iii) Almost all cases focus on a specific company's situation in relation to certain of its customers or suppliers and describe how the relationships develop and are handled. In this way the cases give a special insight and relevant illustration of what kind of marketing and purchasing problems these kinds of companies encounter.

The chapter consists of twenty-three company cases grouped into six sections. The grouping has been carried out in accordance with our choice matrix. The three product rows have been used to group the marketing case and the three manufacturing technology columns to group the purchasing cases. Thus, the six sections are as follows;

1. Marketing of raw and processed materials
2. Marketing of components
3. Marketing of equipment
4. Purchasing by companies with unit-production technology
5. Purchasing by companies with mass-production technology
6. Purchasing by companies with process-production technology

Each section is introduced by a short discussion of interesting and important marketing or purchasing problems relating to that particular category of company. In this way the influence of the technology of the parties on the relationships is penetrated in more depth.

All the cases have a common skeletal framework in which data is first presented about the supplier or customer company and then about one or more interorganizational relationships. This framework consists of the following:

— Characteristics of the company (size, technology, organization, etc.)
— Characteristics of the counterparts as perceived by the respondents.
— Processes of interaction (information and social exchange, adaptations, etc.)
— History of the relationships.
— Environmental factors (market structure, economic and cultural variables).

All the data relates to the situation in 1977 or 1978 when the interviews were made. Thereafter, the particular emphasis given to different parts of the data and the preliminary interpretation of the data is left to the discretion of the case writer or researcher concerned. Each case study, therefore, has a section on `conclusions or case analysis' which summarizes the main issues and relates these to the theoretical concepts of our model in chapter two. These conclusions represent the first tentative steps towards generalizing from the very specific data.

As will be seen, the case studies are different in style and content. This is not accidental, but conforms to a commitment made by the IMP group of researchers. The intention is to present data from the researchers which will not only be interesting, but will subsequently lead to the generation of ideas for more comprehensive and rigorous analysis at a later date.

Some cases present data on as many as ten relationships which a company has with customers or suppliers in all the five countries. Such case studies illustrate how variations between products, markets, countries, and environmental factors are important determinants of the relationships portrayed. Other cases are short and illustrate ideas based upon one or a few relationships. In such cases, the remaining data from that company has not been written into the case presentation, but nevertheless, will be recorded on the computerized data bank for further analysis. Most company cases have a content and style midway between these two extremes.

All names, and sometimes also other basic features, of the presented companies are disguised in order to keep their anonymity.

SECTION 4.1 MARKETING OF RAW AND PROCESSED MATERIALS

This section consists of five company cases preceded by a short general discussion of characteristic marketing problems for firms producing raw or processed materials. The general discussion is one interpretation of some of the data in the cases and its aim is to help the reader's own interpretation of them. In this discus-

sion we will argue that three important issues for firms belonging to this product technology category are related to respectively (a) their process knowledge, (b) their capacity, (c) their credibility.

These issues or problem areas are of relevance to the way that marketing firms handle customer relationships and the influence which the relationships have upon the company's technical and organizational features. The aim is to move the discussion from specific descriptions towards more general explanations and to consider simultaneously the interplay between marketing and purchasing strategies. No claim is made that all issues identified in the cases are covered by the general discussion, but rather that the central issues are highlighted and emphasized.

CHARACTERISTIC MARKETING PROBLEMS AND STRATEGIES

A typical feature of a firm producing raw materials or processed materials is that its core is a process which is specifically designed to refine certain materials. A firm's ability to perform this task is related to its equipment and to its knowledge about the characteristics of the material. A most strategic issue for such a firm, therefore, is the development and protection of its process knowledge.

This knowledge is important both for its own production and for its ability to develop and maintain customer relationships. Typically, the customers will refine the material one step further and, therefore, process knowledge can be a very important marketing service. Another even more important aspect of the process knowledge is that it is a major determinant of the seller's ability to design customer relationships. This, in turn, is critical for the selling firm's long time survival. The process knowledge makes it possible for the selling firm to anticipate what kind of problems different types of customers have or will encounter depending on their use of the product. In this way, a selling company can be prepared to react fast and accurately to forthcoming situations in different relationships.

Another important problem for firms belonging to this category concerns their production capacity. This type of firm is usually capital intensive, which makes them very sensitive to variations in output volume. Furthermore, changes in capacity appear in substantial and discrete steps. Naturally, both the seller's dependence on producing a certain volume and the stepwise capacity changes create problems in these markets. Cyclical variations related to the general level of economic activity are frequently large enough to change these markets from a sellers' to a buyers' market and vice versa. This, in turn, influences both prices and delivery times in a substantial way. Both buying and selling firms try in different ways either to use these variations to their own advantage or to smooth them out. Contracts covering long periods of time and vertical integration between buyers and suppliers in different forms are examples of methods used.

A third issue, important for the supplier and closely related to the two issues discussed above, concerns credibility. The customers want a certain amount of security, both in terms of quality standards (which is related to the seller's process knowledge) and in terms of quantity and time (which are related to the capacity). Before using a certain seller as its main supplier, the buying firm normally tests

the supplier over a rather long period. As a consequence it often takes a great deal of time for a supplier of this type to build up its credibility in its market. Even if a buying firm perceives a certain supplier as being highly trustworthy it often will not use that firm as its sole supplier if the material bought is of great importance. Instead it will have parallel or multiple suppliers in order to protect itself from shortages of materials due to strikes or other unforeseen reasons. In the exceptional cases, when a buying firm just has one supplier or an important material it will try to reduce the uncertainty by different formal or informal `links' or `ties' with the supplier.

The process knowledge, the capacity, and the credibility are three central issues when designing the marketing strategy for a firm producing raw materials or processed materials. Before discussing possible strategies for such firms we will look at how buying firms can use these suppliers, by means of their purchasing strategies.

Of course many different purchasing strategies can be identified. However, if attention is focused on the relationship between the buying and the selling firm most of these strategies fall into two basically different categories.

The first type can be characterized as *product or knowledge oriented.* By using this type of strategy the buying firm is seeking a supplier that can satisfy its specific needs; it is seeking an external expert that can solve its problems. The second type can be characterized as *production or quantity oriented.* When a buying firm uses this kind of strategy it is seeking an external production capacity with a continuous and safe feeder stream of outputs of materials. The difference between these two types of purchasing strategies can be illustrated by considering the kinds of relationships to which they lead.

A successfully-applied product or knowledge-oriented strategy usually leads to a close relationship with wide contacts between the firms including, for example, technical expertise from both sides. The exchange can readily be seen as a technical problem solving process which requires that the information exchange is free and unstructured.

A successfully-applied production or quantity-oriented strategy on the other hand leads to a quite different relationship. This is characterized by being clearly specified with a limited intercompany pattern. The activities performed are all aimed primarily at reducing production or distribution costs and also increasing the precision and the security of deliveries.

These two types of purchasing strategies and corresponding relationships make quite contrasting demands upon the supplier. This applies to the supplier's technical capabilities as well as its organizational skills.

In the first type of relationship based on technical collaboration the supplier needs to have flexibility as well as a good technical knowledge reaching down to quite low levels in the organizational hierarchy, particularly in the marketing or sales department. In the second type of relationships the seller has to achieve a low total cost by means of a well planned and large scale production handling facility complemented by an efficient system for the materials.

In the light of the likely purchasing strategies of customers and the features of

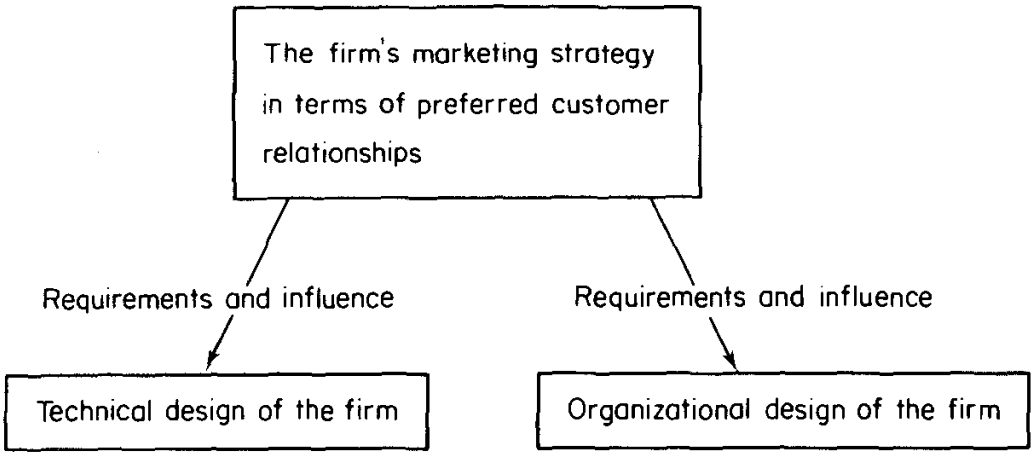


Figure 4.1 The connection between strategy and the technical and organizational features of the firm

raw materials marketing, already discussed, the selling firm's strategy can now be discussed. It can be formulated in the same terms as above. It can be directed at serving the first or the second type of customer relationship, but a common strategy is to combine them. In dealing with some special customers the selling firm tries to establish the first type of product or knowledge oriented relationship, ! while for the others it seeks to establish the second type of production or quantity oriented relationship. Whatever strategy a supplier chooses, this puts special demands on the technical and organizational design of the firm. The more mixed the strategy is, the more difficult it becomes to find a stable solution. The connection between strategy on the one hand and the organization and the technical design of the firm on the other hand is illustrated in Figure 4.1.

The five cases that now will be presented show a number of customer relationships in this type of industrial market as well as the kind of strategies selling firms are using and the problems which these create.

Siderex S.p.A.

This case describes how an Italian steel firm tries to go from a situation where it is tied to a very limited number of buying firms to a situation where it has a wider circle of customers. The case illustrates, for example, what technical changes a firm should have to undergo in order to be able to change its customers. The case also illustrates how long a time such a change can take and furthermore how it forces the firm to develop its process knowledge.

Swesteel

A Swedish steel firm's relationships with ten important customers are analysed.

Some of the relationships are characterized as `close co-operation', some as `newcomers' and some as the `main' ones. The relationships in the first group have developed to such an extent that the firms can be said to be closely integrated. The

second group of relationships are rather new and they are still in a development phase. The `main' group consists of relationships which are in a stable phase and where the co-operation has not reached the same level as in the first group. In all the relationships there are technical exchanges and the strategy of the selling firm is to develop such exchanges. However, the purchasing firms have different strategies and the relationships have thus developed in different ways.

Stahlwerke AG

Against an historical background a German steel firm's attempts to design a new distribution channel in order to get closer customer contacts are described. The products are highly standardized and the case points out the difficulties encountered in creating more extensive relationships in such a situation. This case shows that a selling firm cannot choose strategy freely, but that it has to consider the technical features of the product and even more important, the customers' way of looking at the product.

Britmet

This case describes how a British steel firm tries to open new markets in order to create opportunities to grow. One of the customer relationships analysed is very tight and it can be seen as an example of quasi vertical integration. Britmet's expansion abroad is achieved by approaching a few suitable customers with whom it tries to create direct contacts.

Britmet's strategy is to maintain such a high level of process knowledge that customers will be interested in using it. On the other hand, the company does not hope to achieve the same high ability as its competitors regarding deliveries.

Belter Metals

The description of the British firm Belter Metals shows the difficulties to which a strategy of developing product-oriented relationships can lead. The customers are initially very interested in the seller's abilities, but as soon as the development phase is ended the customers start to use suppliers that are more production oriented because they can obtain a lower price.

SIDEREX S.p.A.

Ivan Snehota

This case deals with problems of starting a number of new relationships with foreign customers, encountered by an Italian company marketing unfinished custom-made components.

One of the main themes of the case is the structural evolution of the marketing function.

THE COMPANY

To potential customers Siderex, a division of the large Italian Steel Company Sidital S.p.A., presents itself as `one of the largest complexes in Europe for hot-forging and pressing of mechanical components in alloy and non-alloy steel, light alloys and other materials'. It currently employs more than 2,000 persons. The majority of investments in its relatively modern production facilities were made round about 1960.

Capacity which exceeds 100,000 tonnes per year was, until the mid-seventies, used exclusively by three large customers in the automotive industry who had owner interests in Siderex.

In order to meet their requirements, all production was specialized in quite large production lots, 15-20,000 pieces per month per item of crude forgings of 0.3-30 kg unit weight. The forgings are made to customers' drawings, then processed and finished by the customer himself to become a number of different mechanical components such as connecting rods, crank shafts, and the like. Siderex worked in such close association with these three customers that it did not even have a proper sales department. Its business operations were virtually deter-mined by the three customers.

In 1975, however, the latter made it clear that, in the future, they would not be able to absorb the entire output as they had in the past and expressed their wish that Siderex should market some of is production elsewhere.

Through its ownership interests they instigated some changes in Siderex's top management, which then started searching for new market opportunities.

The period which followed was rather difficult for Siderex. Its management was lacking in commercial, marketing, and entrepreneurial experience after 20 years in the service of its old customers. This was particularly felt by the marketing depart-ment.

A marketing director was brought in from outside the Company in 1976, and by the end of that year his staff amounted to two people. Not even the most basic routines existed to back up future marketing efforts. Virtually none of the 19 people who formed the marketing department at the end of 1978 had had previous experience in the `forge business' and only three of them had had some experience of marketing.

Technological considerations severely restricted possibilities of finding new markets.

In order to be used efficiently, Siderex's production facilities were dependent on large production runs of forgings for which the customer was prepared to carry out finishing operations on his own. The feasibility of extending operations to include further steps whereby the crude forgings would be processed, thus increasing the value added in production, was examined but found to be limited. Such a major change would entail considerable investments, and would mean entering a market typically dominated by small and medium size forgers which are highly flexible and have cost structures favourable to competitors. In Italy alone there were at that time more than 200 specialized small and medium forges engaged in very keen price competition.

The ideal potential customer was thus defined as the user of large batches of forgings, executing all the finishing operations on his own. The bulk of customers of this type exists in the automotive industry; on the one hand manufacturers of cars, trucks, tractors, and earth-moving equipment and on the other manufacturers of components to this industry. As for the total volume of consumption, both of these groups are roughly equivalent. Apart from the automotive industry a small number of potential new customers were identified in producers of ball-bearings, gears, and such like. The number of potential customers in Italy was quite limited and therefore a lot of attention was devoted to foreign, and, in particular, European markets.

The European market in the automotive field has some peculiarities. With the exception of the UK, the final producers, as a rule, rely on their own internal forgers which generally seem to satisfy at least 80 per cent of their needs. Only limited quantities are supplied by independent outside forgers. As for the component manufacturers, about half of them are closely linked to final producers and have their own forge. The other half buys forgings from a number of independent medium sized forgers. In the UK, however, internal forgers are not very common and the forge market is dominated by a large independent company.

Siderex's first approaches to new clients were clearly influenced by the background of the persons joining the newly-established Marketing Department, their knowledge of markets, language, and perception of market opportunities. To begin with, large manufacturing firms in the automotive field were approached and there is still a lot of contacts under way. But it was the component business that provided the quickest response to the efforts of Siderex.

The initial steps of a relationship between Siderex and a new customer are usually time-consuming and follow a number of phases over a period of 4–10 months. The customer's request for a quotation, accompanied by a drawing of a particular item, is examined for feasibility and a quotation is given on the basis of a preliminary cost assessment. If the quotation is accepted, a period of tooling follows at the suppliers and an initial test run is carried out. If the item is approved by the buyer without further modifications, production may start. The first order is usually a `closed' order for a certain quantity. If the overall performance of the supplier is judged to be satisfactory, he may start to deliver an `open order'. This means that a contract is drawn up in which an approximate volume forecast for a year ahead is agreed upon and the buyer submits orders for specific quantities every month.

Siderex's approach to international marketing can be traced through the following stages. The UK was not initially considered to be a very attractive market because of the strong local competition dominated by one very large specialized forge, nationalistic tendencies in the market, and Siderex's scarce knowledge of the market. Instead the first foreign market to be entered in 1976 was the French one, considered by Siderex people to be psychologically nearer than other markets and easier to deal with, because of the presumed similarity in the way of doing business. One of the very first contracts with a large truck manufacturer undertaken by the newly-appointed Marketing Director, and later by one of his

assistants, resulted in quite an important order of nearly $1.5 million. The customer was at that time looking for an outside supplier since his own forge was not of sufficient capacity and he was reluctant to invest in increasing its capacity.

This relationship, although seemingly a very attractive one, has turned out to be very difficult. The initial difficulties in getting its own organization to perform well were amplified by what Siderex people perceived as a lack of comprehension of their problems on the part of the customer and his lack of flexibility and repeated attempts to take economic advantage of the relationship. In evaluating the relationship after two years, its profitability was clearly unsatisfactory and a gradual withdrawal has been decided upon.

In the meantime another five clients in France were acquired. In some cases supplies from Siderex replaced minor independent suppliers but in most cases supplies from Siderex replaced the forge production of the client.

The German market was the next to be approached. It was viewed as a large potential market, roughly twice the size of the Italian or French markets where an Italian supplier would enjoy a clear cost advantage. One of the persons in the marketing department had had previous `cultural experience' (though only limited) of working with German companies. Given Siderex's limited experience in customer service, the first German customers were found to be very exacting. Trying to live up to the customers' expectations was considered, however, to be a useful learning opportunity. In the opinion of Siderex people today, the market is not a very difficult one. In their view if an adequate service level is achieved, success is guaranteed given the cost advantage over German competitors and German customers' sensitivity to economy factors. In the past three years, in fact, 14 customers were acquired in Germany.

The first contacts in the UK were made in 1977 but so far only a few of these have resulted in either orders or refusals. According to Siderex people it takes more time to work through the initial phases of a relationship in Britain than any-where else. Siderex is presently supplying three customers in Britain but has been negotiating with another eight since 1977.

All Siderex exports are direct. The mother-company's sales representatives abroad, established in some markets after 1976, are common to all divisions of Sidital. They have played only a negligible role, mainly coordinating the sales efforts of Sidital's divisions when directed to one and the same customer. Little use was made of agents and representatives abroad.

By the end of 1978 Siderex's main export markets were:

	Annual sales (million $)
- Germany	4.2
- France	3.7
- Great Britain	1.8
- USA	1.1

Since 1976 about 40 new customers were acquired representing about 15 per cent of the total turn-over. Seventy per cent of the new sales (about 25 customers) are abroad. Siderex's management believes three out of every four customers consider

Siderex a supplier with whom they have started a long-term relationship. The outlook for the next two to three years seems to be promising. In 1977, 40 different items were quoted to 30 new customers while in 1978, 105 items were offered to 44 new customers. Whereas in the past the emphasis was on the acquisition of new accounts, today greater attention is paid to the profitability of these newly won customer relationships. Problems met by Siderex in approaching new clients in the three European markets are illustrated by the three cases of customer relations below.

Foucher SA

Foucher, an important supplier of parts of differential gear to a number of companies in the automotive industry in Europe, is Siderex's largest single customer in France. It buys from Siderex items amounting to more than $1 million a year.

In 1976 Foucher was a supplier to one of Siderex's old customers and contact was made during a visit to Foucher's people to this customer. Since Foucher had problems at that time with one of its suppliers, they requested Siderex for a quotation for two items.

The configuration of the specification was quite new to Siderex and a lot of technical difficulties were encountered in the attempt to meet Foucher's specifications. Investment in special tools and a particular thermal treatment were necessary to avoid negative effects on material structure and to guarantee accept-able workability of the pieces at Fouchers. Operations undertaken by Foucher and final applications of the components pose specific requirements on material quality and dimensional tolerance of the items supplied by Siderex. The efficiency of Foucher's production process depends quite heavily on these features. Given the collaborative attitudes of the customer, but without his direct help, all the initial technical problems were solved. From that moment, the development of the relationship is considered by Siderex to have been straightforward. Orders for a further four items were acquired, two of which have a unique configuration on which Siderex succeeded in solving all the technical problems.

Foucher is quite a large user of crude forgings. Siderex people estimate they buy $20 million worth of forgings a year. Continuity in supply is crucial to Foucher because of the highly automated production process. At least two suppliers are used for each particular item. A 30-day delay in delivery would mean cancellations of the order. For the items supplied by Siderex another two suppliers are used: one French and one German. Siderex supplies some 30 per cent of the total needs of the six items. There were a total of seven persons from both sides involved in the relationship. Apart from the Siderex Marketing Director who was active mainly in the opening phases of the relationship, the bulk of contacts were made by the salesman responsible for the French market. His counterparts in Foucher were three people in the Buying Department. During these contacts all the conditions of the order and contract were negotiated with the Director and Vice Director of Purchasing, whereas questions regarding deliveries were handled by a senior buyer. During the first phases of the relationship there was extensive contact with three technicians from Laboratories,

the Engineering and Production departments respectively. Shipping and financial problems were discussed with Foucher's Administration Department. The salesman in charge of Foucher visits the client every two months.

To begin with, all contacts with Foucher were channelled through the salesman in charge. He used to obtain the data from Engineering and Administration departments and calculate the offers. When the `feasibility' of a specific design was discussed and samples made, the salesman was personally involved and coordinated the Laboratories, Engineering, Production, and Quality Control Departments. Finally, when deliveries started the Quality Control and Production Departments were chiefly involved. Whereas in the beginning Laboratories, Production, Engineering, and Quality Control were directly involved with Foucher's people through the salesman, later on a need was felt to institute a special Technical Service Department to liaise between Siderex and the client on technical matters. This department has three technicians today, one of whom acts as the channel through which all the technical contacts from Foucher are made. This `usual person' arrangement, which can mobilize expertise required inside Siderex, seems to be the arrangement preferred by Foucher and also other customers. The only use made of the Siderex agent in France is as guide and translator to the technicians when needed, during their visits to Foucher.

Gerhart AG

The relationship with Gerhart, Siderex's largest single customer in Germany, has a lot of similarities to that with Foucher. Gerhart is a medium sized supplier of components such as connecting rods, to the automotive industry in Europe. It has a minor forge of its own which satisfies a large part of its needs. Like Foucher, Gerhart is highly respected by Siderex for its professional efficiency, honesty, and clarity of the organization, and is considered in general to be very easy to deal with.

The beginning of the relationship with Gerhart is similar to that with Foucher. Gerhart was a supplier to one of the old customers of Siderex and the first contacts were taken under similar circumstances as with Foucher. The volume of exchange with Gerhart in 1978 was about $1 million. Possibilities of expanding this volume in future are not considered to be very great although Siderex is Gerhart's second supplier providing some 15 per cent of its total needs. Contact with Gerhart, according to Siderex people, was facilitated by the limited capacity of one of its old suppliers and Siderex's price advantage in Germany, even though the price quoted was not at that moment considered by Siderex to be low.

The type of items requested by Gerhart was not new to Siderex, even if the particular configuration of the product entailed some new problems, but these were quickly overcome. There were difficulties to begin with due to the need to adapt to German technical norms, requests for documentation and in general to the `German way of doing business'. The relationship with Gerhart was in this respect considered by Siderex's people the acid test of a supplier who wants to reach, as they put it, the `German level of customer service'. According to the salesman in charge, satisfying one German customer, means being well equipped

to deal with any German customer, besides the fact that a reference from a German customer is very useful in approaching other German companies.

After acquisition of the first orders for three items, Siderex quoted to Gerhart for the production of one item in aluminium alloy. Drop forging of aluminium alloy in this field was so far mastered by only one of Gerhart suppliers. The idea, readily accepted by Siderex's Laboratories, came from the salesman responsible for the German market. After some internal discussions in Siderex, the idea gradually won the support of the top management, who viewed this as a viable way to diversify the company's competence. Siderex had only limited experience up to that time of treating aluminium alloys.

Pressing and thermal treatment of aluminium alloys offered technical problems which were quite new to Siderex. Apart from the necessity of acquiring certain know-how about the process, considerable additional investment in equipment were required. Use of aluminium gives components substantially superior characteristics for certain applications. This can permit a 20–30 per cent increase in the price for the final users for the component made by Gerhart.

To Siderex the important thing about using aluminium alloy is that the difference in the cost of the materials (aluminium is about four times more expensive than steel alloys used) leads to about three times higher cost and price of their product and consequently somewhat better profit margins can be obtained. Gerhart savings lie in increased workability of the aluminium, less scrap and less need for finishing and surface treatment.

Components sold by Gerhart are used in applications where no defects in quality can be permitted. The quality, in terms of the material endurance of Siderex's products, is therefore closely watched. Quality to Siderex and Gerhart is a combined factor depending on the geometry of the particular item and quality of the material used. Large batch production at Gerhart, makes the continuity of deliveries crucial. Even if two parallel suppliers are used for each item Gerhart does not tolerate more than 10 days delay in delivery. Ten to fifteen truck loads are usually shipped to Gerhart per month.

The salesman in charge visits Gerhart at least once every two months and hears from them almost every day. Visits from Gerhart's people are only sporadic. The salesman is, against his will, the total filter and focal point of all the contacts with the customer's personnel, since he is the only one who speaks German. His interface in Gerhart is rather varied and comprises some 15 persons, four of whom are in the Buying Department: the head of the Buying Department and three senior buyers. He is in contact with production people at different levels: the head of Production Department, a couple of foremen and three to four people from the Quality Control Department. Finally, he has quite frequent contacts with three to four engineers from the R and D and Production and Technology Departments when supplies of a new item are under discussion.

When a new item is considered for delivery, the discussion within Siderex involve the Cost Analysis, Engineering and Production Departments, whereas every day problems are discussed with the Quality Control, Production Programming, and Administrative Department.

When required, Siderex technicians from the Technical Service Department or

other specialists, depending on the type of problem encountered, are sent to Gerhart within 24 hours. Since they do not speak German as a rule the technicians are usually accompanied by the salesman responsible. Sidital's affiliate in Germany has never been involved in the relationship with this customer.

British Truck Company

The British Truck Co. (BTC) is the truck-producing division of a large multi-national company, Dutch Automotive (DAC), with headquarters in Amsterdam, BTC employs about 3,000 persons in the UK but has production facilities in several countries in Europe. It was first approached by Siderex in 1977 when a number of other companies in the automotive industry in the UK were contacted and among them all the different DAC divisions. Negotiations are still underway with most of the companies contacted at that time, including some of the other DAC divisions.

Deliveries to BTC started only in 1978 and involved nine items for the truck body and accessory equipment for a total of $600,000 per year. BTC was found to have a lot of similarities with Siderex's old Italian customers. It is considered to be bureaucratic to a large degree and its organization is not very easy to grasp.

Siderex people believe that the opportunity to become a supplier to BTC was helped by a reorganization of the Purchasing Department in BTC in 1977 when part of it was moved from the European Headquarters in Holland to the UK which, according to them, has shaken the existing supplier relationships and broken down the interpersonal relations between the buyers and the old supplier.

When first approached in 1977, BTC's Buying Department found that Siderex was an interesting alternative. The economic terms and conditions offered by Siderex were found attractive when compared with those of the dominating British supplier. Moreover BTC was at that time experiencing serious delivery problems with the domestic suppliers. The fact that Siderex had, for a long time, been the main supplier to three old Italian customers was considered to be a guarantee of solid performance, stability, and continuity of supply.

Because of the similarity to Siderex's traditional customers, there were hardly any problems in complying with BTC's requirements regarding the product. Siderex has had long experience in the production of components very similar to those requested. But while there was no need for specific technical adaptations, the bureaucratic part of the relationship has offered numerous new problems.

Contemporarily with the initial request for a quotation for three items, BTC started an investigation of Siderex in order to include them in a list of accepted suppliers. During this lengthy procedure their financial situation was investigated and production facilities inspected. Not being prepared for this, Siderex had some difficulties in producing the information requested. A number of new procedures to certify certain aspects of the production process were asked for and a common quality control procedure had to be developed. One person from the newly established Technical Service and Siderex's agent in the UK, together with BTC's Quality Control, worked on these control and test procedures for several months.

One episode from that period is remembered by Siderex people as showing the typical attitude of the BTC's organization. In answer to a request for one particular item, Siderex presented two solutions. One conformed to BTC's specifications while the other provided a different technical solution experienced previously with other customers and considered to be superior economically and functionally. The improved specification was not even examined by BTC's people and was returned with the comment `you are not on our list of suppliers, so please do as we say'.

Despite all the initial complications, within a few months Siderex was approved as a supplier and got an open order for the first three items. Since then other items were solicited, offered and have been supplied without complications. At a later stage BTC requested a security stock of one month, which was arranged in 1978. Delivery timing does not seem to pose any problem since a particular arrangement regarding shipments was made in order to avoid risk of delays. As a rule, two suppliers are used for all items such as those supplied by Siderex, but for at least two of the items Siderex are convinced they are the only supplier. Since the production batches in BTC are limited, BTC's anxiety about delivery delays (there have never been any) is considered to be one of the idiosyncracies of the industry by Siderex's people. Throughout the negotiations four people from Siderex and the agent in the UK were involved with the customer. This time the agent, taken over from a competitor, played an important role as `sensor' located near the customer passing all signals to Siderex, given the lengthy process of defining the conditions of the relationship.

After the first visit to BTC by one of the salesmen, contacts with the customer were mainly undertaken by the Export Sales Manager occasionally assisted by the Marketing Director. Most of the discussions were held with two senior buyers and a technician from the Engineering Department of BTC. According to the Export Sales Manager the diffuseness and complexity of the customer organization required a great deal of `investment' from him in terms of social contacts in order to gain the Buyer's confidence. In 1978 he was visiting BTC at least once a month. BTC people only came to Italy twice during the last two years. Since the beginning of the relationship the Technical Service Department has been in contact continuously with BTC's Quality Control. The Engineering, Laboratories and Quality Control Departments became involved with BTC as a matter of routine through the marketing people on questions regarding the initial definition of test and control procedures. Later the Production and Production Programming Departments became involved with the customer.

CONCLUDING REMARKS

Siderex's effort to start up new customer relationships during the last three years provides an interesting opportunity to study the evolution of the marketing function. Originally, the whole company with its productive and organizational resources was operating but without a proper marketing function. Although the situation is not a typical one it provides an occasion to reflect on the nature of the marketing function in Siderex's business.

The international dimension of the case is closely interlinked with the more general issue of the marketing of custom-made components. Through the single customer relationships, the company is gradually learning about the nature of the marketing task and its main elements. Parallel to this, one can observe the gradual evolution of the company structure in order to cope with the activities imposed by the customer relationships.

Siderex starts with quite high potential technological competence which had been developed during the 20 years of working for the old customers. Siderex experiences its first serious problems when starting to offer this capacity on a contractual basis. After a couple of months a person is put to follow and analyse the market full-time and a Marketing Planning Service emerges within the Marketing Department.

One of the first new relationships is the one with the French customer, Foucher. On that occasion Siderex is learning to handle the `contractual' part of the relationship in a broad sense. Elaboration of questions and exchange of technical information between the two organizations are the first problems to be mastered. Account data are not organized in such a way as to permit a quick elaboration of quotations nor to allow profitability analysis of single orders. Minor technical problems become difficult to overcome because the existing organization does not permit marketing people to mobilize the needed expertise quickly enough. The Marketing Department is only with some difficulty gaining the role of a `credible representative of the customer' with respect to the rest of the organization. On the basis of these experiences, a Technical Staff function is organized within the Marketing Department composed of three persons: two in charge of the Technical Service and one keeping contact with Engineering and Accounting to prepare the quotations.

According to the marketing people one of the main problems in the very beginning was the prevailing attitude and lack of understanding of the needs of a customer among the technical personnel. So, for example, a technician on a visit to a customer's production site, having all the competence necessary to solve the problem, would never commit himself to any decision without first coming back and reporting the problem to his boss.

In relation to the German customer Gerhart, the overall performance of `customer service' is put on trial and improved. Routines are getting to work and all of the organization is acquiring further experience and increasing efficiency. In the atmosphere of confidence, the collaboration with Gerhart is used to further develop the problem-solving capability of the company. Siderex starts to develop its know-how about aluminium processing. A deeper contact network is established with a customer's Production and Engineering functions. The Marketing Department is involved with Siderex's Production and Technical Development Departments over the issue and increases its status within the organization.

In the relationship with the British customer BTC, experience is gained of another sector of Siderex's business. Whereas the technical content of the relationship is purely routine, it takes a lot to learn how to handle customers' bureaucracy. A number of administrative procedures have to be implemented in order to `let the customer appreciate the technological know-how' which seems to

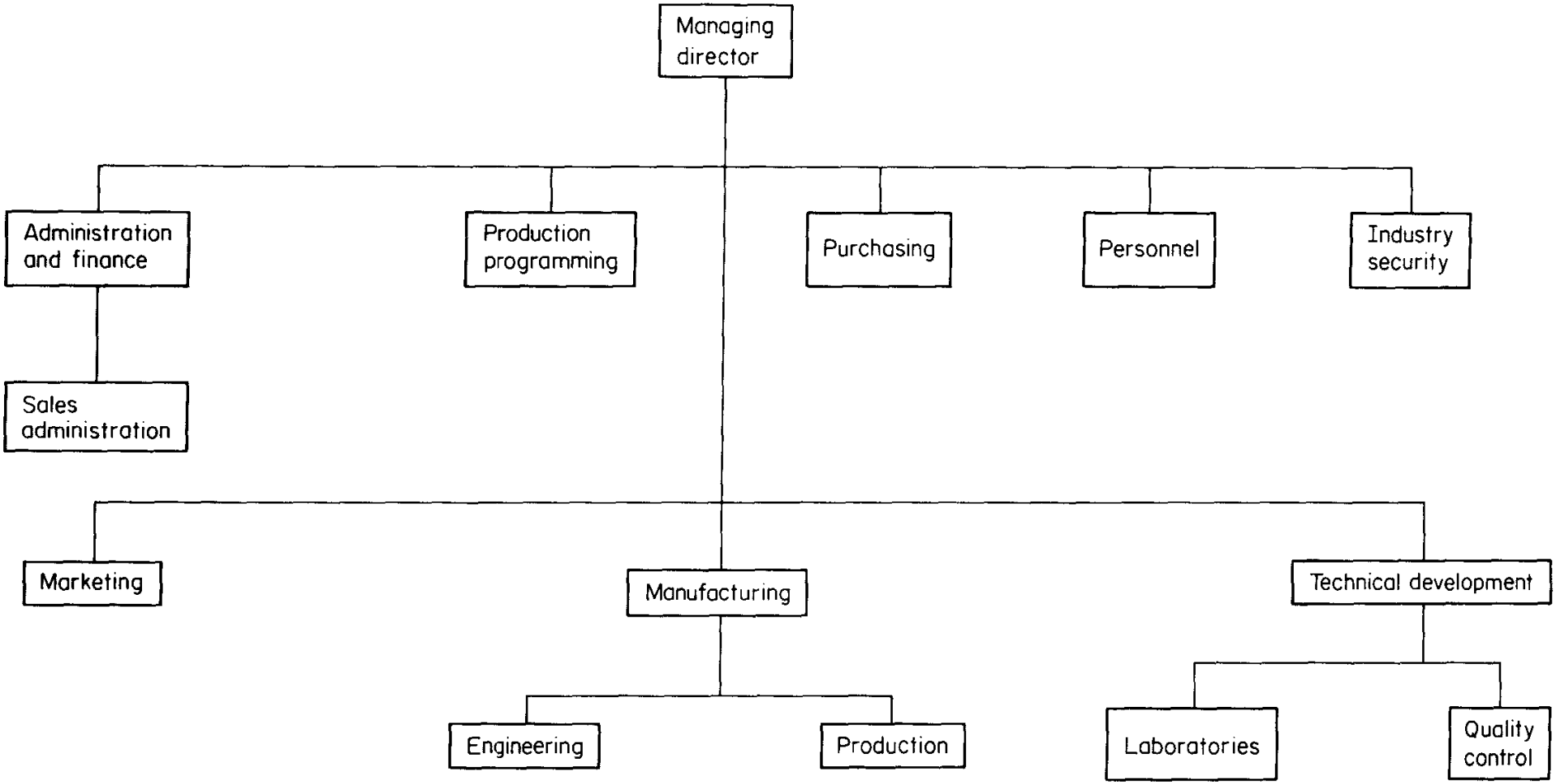


Exhibit 1 Siderex's organizational chart (1978)

fit the customer perfectly. In this case Siderex's people emphasize the importance of interpersonal relations in overcoming initial difficulties. Great use is made of the agent with competence and experience in these procedural problems.

Starting new customer relationships and learning about the marketing task is accompanied by adaptations in the structure of the marketing function (not only of the Marketing Department) to the task. A rough organizational chart of the company is given in Exhibit 1 and of the Marketing Department in Exhibit 2.

In the sometimes painful process of getting the company to be more customer orientated, the role of the Marketing Department is an interesting one. Throughout the process Marketing exercised the role of a `change agent' with respect to the rest of the company. If the results of this effort can be considered at least partly successful it was due to careful management of the relations with the rest of the company. The personality of the Marketing Director seems to have great importance in this. Personnel recruited to the department, although lacking much previous experience, were given complete autonomy with respect to customers, while the Director was devoting a lot of attention and effort to the management of the relations to other departments in Siderex. The high degree of decentralization of authority within the department does not seem to be very common for an Italian company.

Another thing resulting from the Siderex case is the importance of the industry's structure and links within it to the company's marketing activities. The way in which contacts were established with Foucher, Gerhart, BTC, and other customers may testify to this.

In all three customer situations described the supplier relationship was initiated at a moment when the customer was experiencing difficulties with suppliers used previously. The BTC case may moreover be taken as an illustration of the effect which the reorganization of the Purchasing Department may have on supplier relations.

The more specific international aspects of the Siderex case seem to be: first, the pattern of expansion of foreign sales follows the perceptions of the marketing staff

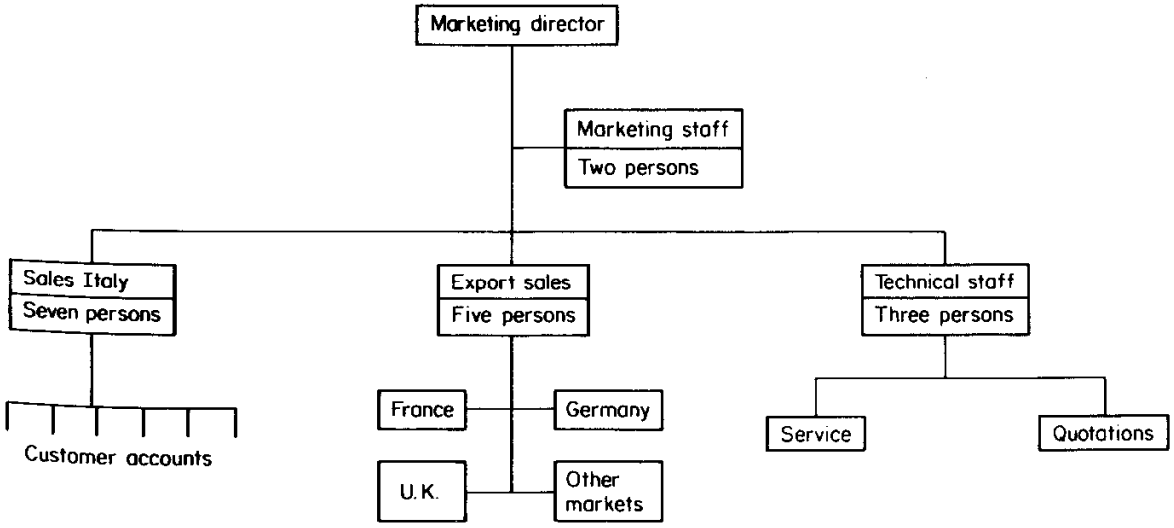


Exhibit 2 Marketing department 1978

which are rather idiosyncratic and culture-bound. Their previous experience plays a more important role than the size of potential markets in determining the direction of expansion. Secondly, the cultural differences between the different European markets are considered important by the marketing staff and always seem to be taken into consideration when approaching a new client. A great deal of attention is given to adapting to `their way of doing business'.

Finally, the difficulties of communication (language problems) have noticeable effects on the emerging pattern of contact in the relationships with different customers.

SWESTEEL

Håkan Håkansson

A firm producing and marketing new materials or minor processed materials has often a rather exposed position. Competitors with lower costs for labour, or some other input factor, will sooner or later appear in the market and attack the established firms' positions. This has happened several times in the steel industry. Lately it has been producers in Japan that have challenged the European and North-American steel firms in their own home markets. Producers in countries like South-Korea and Brazil are waiting for their turn.

One possible way for a firm in a high-cost country like Sweden to compete with these low-cost producers is to process the material one step further, i.e. to integrate forward. This has happened in the Swedish steel industry where several firms mainly produce special quality steels.

To produce specialities also means that the firms have to market them world-wide in order to attain economic production volumes. All the Swedish special steel firms are therefore highly international and sell between 50 and 90 per cent of their output abroad.

Here we are going to describe the marketing situation, including ten important customer relationships, for one of those firms. The case is intended to:

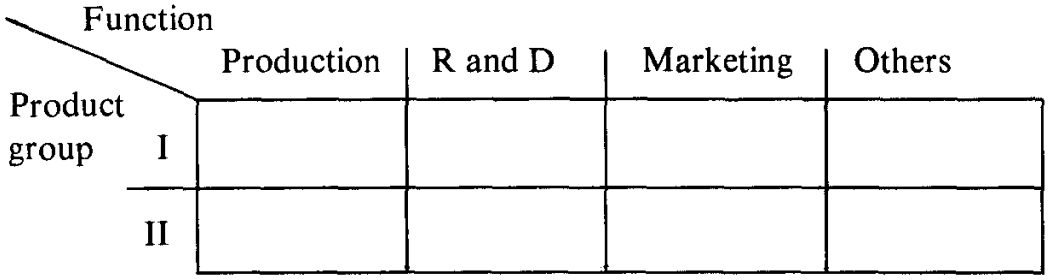
— characterize the marketing situation for firms with this kind of production technology (i.e. producers of processed materials);
— show the variations that exist in the several customer relationships for one seller with this technology;
— discuss the selling firm's marketing problems associated with the different relationships;
— show how the seller's strategy can be identified in the relationships, despite the above mentioned variations.

THE COMPANY

Swesteel is, as are all Swedish special steel firms, old and situated in the middle of Sweden. It is a large firm, both in number of employees and in size of turnover.

The firm is divided into several divisions and the interviews are focused on one of those. The division which was studied accounts for one third of Swesteel's total turnover and employees.

The division is functionally organized with departments for production, marketing, R and D and so on. However, there is also another important factor which significantly affects the organizational structure. Each department is divided into two sections, each one specializing in one product group. The organization structure can be described according to the following matrix;



SWESTEEL'S MARKETING STRATEGY

The Swedish steel industry went through an important structural crisis in the 1920s. The earlier advantages that the Swedish steel firms possessed, through their high quality, were diminished because new steel production processes were developed where all kinds of inputs of raw materials could be used. The crisis due to technological change caused the steel firms to specialize within certain product areas, which in turn required investments in R and D. The Swedish steel firms had to develop their resources and knowledge in this newer technology and, as a result of their specialization, they became technical leaders in some narrow areas. Swesteel was one of those. It is thus heavily technically orientated and it has a very good technical reputation.

Swesteel has developed a rather extensive international marketing organization. It has sales subsidiaries in France, Germany, Italy, and the UK and are all well established with their own personnel and stocks. The subsidiaries have total responsibility for the marketing activities in their territories, but they are always backed up by the marketing department at headquarters. The back-up consists mainly of technical advice and technical services, but also of estimation of possible delivery dates for larger quantities and decisions regarding special discounts.

Another consequence of the historical development is that Swesteel's products vary from highly standardized to highly specialized ones. The company's market shares show a very wide variation because for some of its products Swesteel is almost unique (there being just a few other firms in the whole world that can produce the same product) — while for its more standardized products there are a lot of competitors. The market shares for different products within the same product group, therefore, vary between 95 per cent and 1 per cent, within the same country market.

Swesteel's long-established position in the four markets make them quite well-known among the potential customers. Another effect is that a lot of their customers have bought from Swesteel for many years. Less than 5 per cent of the turnover is normally bought by new customers.

The five markets together take about 40 per cent of the turnover of the division studied. The West-German and the Swedish home-market are the two most important ones. The turnover in each of these is more than double the turnover in each of the three other markets. Those three are almost of the same importance in relation to each other.

CUSTOMER RELATIONSHIPS

Ten relationships were covered in the study. Five were chosen amongst the customers of product-group I and five amongst the customers of product-group H. For each product-group, one customer (normally the largest in purchased volume) in each of the five country markets was chosen. In order to identify the different relationships we will use the following notations in the rest of this case;

	France	Germany	Italy	Sweden	UK
Product-group I	Fl	G1	I1	S 1	El
Product-group II	F2	G2	I2	S2	E2

The two product-groups are defined according to the shape of the steel. Different examples of the shape are sheet, strip, tube, wire, and bar. Two of these are produced by this division.

When analysing the ten relationships in accordance with our interaction model, it was possible to identify three different groups;

(a) One group is characterized by very extensive relationships; those with Si and El. Technical and administrative adaptations have been made by both supplier and customers. The relationships are both quite old and they are seen as `special' from Swesteel's point of view.
(b) Another group consists of new relationships; those with E2 and F2. In neither of these have any substantial adaptations been made. As a matter of fact Swesteel has not yet learned to co-operate with these two customers; they do not know them well enough.
(c) The third group is more heterogeneous and consists of six relationships. All are rather old but in no case has the relationship evolved to include technical co-operation. However, there are examples within the group where the parties have agreed upon administrative and marketing adaptations. Some of these relationships can also be characterized as more friendly than others in the group.

Let us now examine each of these three groups more carefully by analysing three of the main dimensions of the interaction; i.e. the exchange processes, the parties involved, and the interaction environment.

The `Close Co-operation' Group

The two relationships with S l and El are both very extensive in several dimensions and they are both quite old. The relationships were started 30 years ago.

The products bought by these two customers belong to the same product-group but are quite different. El purchases a product that is used as a major component in its own product while S 1 uses its product as a processed raw material; i.e. which is transformed through its production process to another product.

The volumes bought are quite different. Sl can be characterized as a large volume buyer while El is more of a special quality buyer. Both of them take about 70–80 per cent of their total need of the actual products from Swesteel. Swesteel's margins are thus small per unit in relation to S1 and large per unit in relation to El. In both cases there has been considerable technical co-operation, and the products have both been developed in collaboration with the buying firms.

The exchange of information is very extensive in these two relationships and a lot of persons in Swesteel have been in frequent contact with the personnel in the two buying firms.

When characterizing the relationship with S 1 the marketing operative said: `We know each other very well and I must say that we have worked extremely well together.'

In describing the nature of the co-operation between Swesteel and S2 he stated: `This customer's organization and our own fit together perfectly. Our groups fits into its structure as cogs in a cog-wheel!'

The marketing operative responsible for the relationship with El described the situation in the following way: `We do whatever he wants. The customer always gets the best in services, technical advice and deliveries.'

When describing the kind of relationship that existed, he used the following words: `There is a strong personal relationship between the firms.'

The two buying firms belong to the engineering industry and both have a mass production technology. S1 is very knowledgeable about metallurgical questions and the relationship can be seen as a partnership between two very competent units. However, El is not at all specialized in these areas and Swesteel can be seen as the customer's external specialist.

The interaction environment is quite different for the two relationships. There are large competitors to both Swesteel and Sl in their relationship. Their integration can at least partly be seen as a defence against these competitors. In the relationship with El there is just one (small) competitor on Swesteel's side and no one on El's side. The product is thus much more unique in the second case.

In summary, these two relationships are quite similar in certain dimensions such as age, adaptations, organizational contacts, and importance. But in some other dimensions such as the type of product, absolute volume, and interaction environment they are quite different.

The Group of `New-Comers'

The two relationships with E2 and F2 are young and `fresh'. They are only three

years old. These two customers are perceived by Swesteel to be tough and very interested in economic questions. As a consequence both relationships can be characterized as `business orientated' in that they are quite formalized and are on an `arm's length' basis.

The products bought by these two firms belong to the same product group and they are also quite similar. Both are standardized and they are used as the main raw material in the customer's production processes. The volumes are now considerable and these customers each take more than 25 per cent of Swesteel's turnover of this product group in the two countries respectively.

The customers' use of Swesteel are, however, quite different. F2 uses it as the only supplier for this product, while E2 only has it as a minor supplier. E2 takes only 10 per cent of its need from Swesteel.

The two customers are small firms, highly specialized and with an international orientation. To some extent they can be seen as a typical end result of the highly specialized western industry. Swesteel perceives both as `competent, especially in business matters'. There is very little of a social commitment in these two relationships.

The interaction environments are different in France and UK. This is also the explanation to why Swesteel is used in different ways by the two customers. In the UK there is a domestic supplier dominating the market. During recent years this UK supplier has been more interested in developing its export than developing its home market. This is because of Government's price regulations in the home market. E2 has felt this lack of interest and, as a consequence, has tried to interest foreign suppliers such as Swesteel to enter the market.

In France Swesteel, together with a French supplier, dominate the market. They each take more than 30 per cent of the market. F2 has chosen to use one of the two as his main supplier. The reason for taking the foreign one, Swesteel, can be a wish to try to achieve some differential advantage in relation to those of its competitors that use the domestic producer. In this way F2 uses the foreign supplier as its main negotiating argument in the market.

The `Main' Group (S2, G1, G2, Fl, II, and 12)

The six relationships in this group are all rather old, none is younger than 10 years. Some are very old, lasting between 40 and 50 years. There are some differences between them in interaction terms but not to a very large extent. All are important to Swesteel, at least from an economic point of view.

The interaction between Swesteel and these customers is characterized by the presence of some adaptations, technical, administrative, or from a marketing point of view. However, the relationships have not developed into such extensive ones as in the `close co-operation' group. There is just one of these six that can possibly evolve to such a relationship and that is with G1. As the marketing operative said about it: `We are in the middle of a development process, but we don't know where it will end.'

There are also differences between the relationships in terms of the social exchange. Some are characterized as open and friendly, while others are perceived

to be strictly business relationships. The marketing operative handling one of the Italian relationships stated: `We have tried to get a more open atmosphere; we have, for example, tried to take up technical problems and suggest possibilities of solving these together; but the customer has been very unresponsive.'

The largest difference in the interaction environment among these relations are the variations in the market structure. To some extent this is related to the characteristics of the country markets. For example, the competition in Germany is perceived to be much harder than in UK, but there are also large differences within each country. These differences are, in turn, a result of the variation in the products' degree of uniqueness which was discussed in the introduction to this case.

In summary, we can probably divide the `main group' into subgroups such as `potential close co-operation', `open friendly', and `strictly business' relationships. In this case study these subgroups have at least so much in common that we have not made such a division.

It is interesting to observe that there is at least one common feature in all ten relationships. The most important factor in Swesteel's strategy is probably their emphasis on technical development. A lot of their promotion is concentrated upon this aspect and it can also be found in all ten relationships. The personnel from the R and D Department are involved in all the ten relationships, even those characterized as `strictly business' ones. In this way Swesteel tries to emphasize the technical problems in the interaction and furthermore tries to find possibilities for technical co-operation. Our results show that this strategy has then been very well implemented.

MARKETING PROBLEMS IN THE THREE GROUPS OF RELATIONSHIPS

Swesteel's marketing problems are quite different in these three types of relationships. For example, not all the same kind of problems occur in the `close co-operation' ones as in the `new-comers' ones. Some of the special questions that arise are presented below for each group.

`Close co-operations': The main problem in these relationships is to guarantee the continuity and at the same time renew them. These problems include the need to keep one's own organization alert for all kinds of signals from the counterpart and ensure that the personnel know about their high priority. In order to guarantee the continuity, it is necessary to constantly develop the administrative routines both within the selling firm and in relation to the customer.

Another more strategic question is to regularly evaluate the positive and negative effects of each relationship and analyse possibilities of developing them further. If the negative effects are increasing, and are expected to continue to increase, there may be a need to try to wind up the relationship. Of course such a process must be done step-wise over a rather long period of time. If this is not done, the selling firm will tie up a lot of resources which could be used in other relationships.

New-comers': The problems here normally originate from the fact that the parties still do not know each other well enough. Thus there is a need for the selling firm both to obtain more information about the customers and their needs as well as to inform customers about its own abilities. In other words, the seller has to try to get both wider and deeper contacts with these customers.

During this penetration process the firm has also to decide whether it should try to develop the relationship to a `close co-operation' one or just to a `main' relationship. Here it is important to notice that a selling firm cannot have a large number of close co-operation relationships because of resource limitations, and there is thus no need to try to develop all relationships to that extent.

However, in these new relationships it is important to try to find a proper level of the future interaction, including adaptations and so on.

Main group': In the main group this proper level of interaction normally has been found. The main problem can therefore be characterized as keeping the relationships alive without spending too much resources on them. But when occasions to develop them occur, the selling firm has to have the sensitivity to react, as Swesteel has done in one of its relationships. This means that when new conditions arise for the buying firm, the selling firm must realize this and respond to initiatives from the counterpart.

STAHLWERKE AG

Michael Kutschker

The theoretical model in Chapter 2 presents some ideas about environmental `atmosphere' in industrial marketing. The historically determined development of a national industry, like the German steel industry, demonstrates that the cause of the present problems, as well as the atmosphere in an industry's social economic field, is a consequence of decisions and development in the past.

Obviously, it would be somewhat exaggerated to trace back all present problems, particularly those of supplier—customer relationships, to the roots of historical development. A characteristic of social phenomena is their multi-dimensional set of explanatory variables. Therefore, the presentation of the following case should be understood as an attempt to gain insights and an understanding of actual marketing strategies by highlighting one dimension: that of historical development.

HISTORY AND MARKET SITUATION OF THE GERMAN STEEL INDUSTRY

History

Concentrated in three areas, the Saarland, the Ruhrgebiet, and Oberschlesien

(now Poland), most of today's large companies comprising the German Steel Industry were founded in the 19th century. This regional concentration was caused by geological and geographical opportunities. Having mines of ore and coal in close proximity, these fruitful combinations have been supported by an infra-structure, consisting of navigable rivers, railways, and roads, allowing the transport of the new materials and the produced steel products. New production processes, such as the introduction of Siemens—Martin steel, the Thomas and S.D. steel processing systems, as well as the expansion of manufacturing capacity and the consequential investments, exceeded the financial resources of the founder families. Most of the family-owned companies were transformed into joint-stock (incorporated) companies.

The next steps of the evolutionary process are characterized by a strategy of `organizational rationality' (Thompson 1967). Such large scale manufacturing operations, and their sensitivity to demand fluctuations, made it necessary to `buffer' the technological core against the uncertainty of the environment. The steel producers went a step further when `negotiating' their environment and bought their supplies (coal mines) and clients in manufacturing industry until, at the beginning of the 20th century, they formed the first vertically-integrated conglomerates. After World War I, political instabilities, the loss of the Saarland and parts of Oberschlesien, and the occupation of the Ruhrgebiet, caused serious losses to the German Steel Industry. One of the consequences has been a merger of four of the greatest steel producers, called `Vereinigte Stahlwerke', thus concentrating 42 per cent of German steel production. This large vertically and horizontally integrated combine had a counterpart in the `Reichswerke Hermann Goring', founded in 1937 and employing 600,000 people by 1940. After World War II, this concentrated heavy industry has been the target of the `operation severence', initiated by the Allied Occupation Forces. From a theoretical point of view, this period between the wars is very interesting. This was a period of integration, expansion, and emerging conglomerates, induced by such different objectives of cost saving, resources securing, political pressure of the Hitler regime for a centralized autocratic steel industry, and the counter reactions of industry against these plans, forming the base of a highly complex and interwoven network of formal and informal communication, giving the steel industry the character of a socio-economic field.

An example can illustrate the sivation. The former `Reichsverband der Deutschen Industries', the top association of the German industry, was `co-ordinated' by the Nazi regime and did therefore lose its original functions. These were taken over by an informal institution, called `Kleiner Kreis', a monthly meeting of the presidents of companies like Krupp, Hoesch, Klockner, Mannesmann, etc. It is not suprising that this association, which was made easily vulnerable by treason, though built on mutual trust, established the base for close socio-emotional relationships between the leaders of organizations who were expected to be competitors.

The period after World War II is characterized by the dismantling and decartelization (`operation severence') of German industry, not only the steel

industry. It was followed by a period of quick recovery, with steel production in 1952 reaching the same level as it had before the war.

The growth of the German Steel Industry certainly has been stimulated by the foundation of the Montan-Union, the first European organization. Despite the positive effects of this well-known institution, the regularization of this market, as instanced by price agreements has reduced the possibility for individual marketing strategies.

The Market Situation

The German steel market is characterized by heavy losses, amounting in 1977 to an estimated £400 million. Every ton of steel produced causes a loss of £12—15. Thyssen reports a loss of £5 per tonne, Klockner £19 per tonne, Estel—Hoesch £12 per tonne. (Source: *Suddeutsche Zeitung Nr. 98,* 1978, S. 30). Due to the increase of the minimum price as instanced by Davignon announcing a further 10 per cent increase for July 1st, 1978, and the American trigger price system for the world's most important steel market, there are growing hopes for a better steel year in 1978.

Business reports for the year 1976 show a growing competition in export markets as well as in the home market. The main competition for EEC-companies comes from Japan. In Third World countries the relation between EEC and Japanese supply in 1974 and 1975 has been 45:55, declining sharply in 1976 to a ratio of 27:73. This is illustrated too in the EEC-export figures showing a decline in rolled steel from 21 million tonnes (1975) to 18 million tonnes (1976). Competition in the home market, too, caused a drop in prices. The import quota increased from 29 per cent (1975) to 34 per cent (1976) diminishing the traditional export surplus to zero.

These figures show not only a temporary, but also a structural weakness of the German steel industry. A structure, which served to guarantee success in the past, nowadays causing disadvantages, which must be overcome by marketing strategies.

GENERAL MARKETING STRATEGIES

Plant Location

Success for the German Steel Industry has been guaranteed for a long time by short geographical distances to coal and ore resources. Nowadays, this advantage becomes a disadvantage for the German steel producers. The growing need for raw materials, particularly ore, must be satisfied by overseas ore mines in South America, Africa, Australia, and India. The steel mills being located inland, the transport of raw materials from the coast to the mills creates a cost disadvantage, compared with those mills situated at the coast, as is common for a country such as Japan. Some of the steel producers solved this problem of plant location by building new plants at the coast, or merging with (or buying) steel mills situated at the coast. Compared with French and British steel companies, German plants

have modernized their equipment. This and the potential future production quotas for the EEC-members hinders the rest of the German Steel Industry in making the necessary decisions about plant location.

Diversification

If one labels the time before World War II as `the age of vertical integration', then the steel mills are now confronted with an `age of diversification'. The stagnation of world demand for steel, new plants in the Third World and Comecon having direct access to raw materials, and the heavy losses in recent years, are interpreted, not as temporary, but as structural problems of the steel industry. Recovery is not expected to come from improving production technology or from market extension, but mainly by rationalization and by diversifying and extending the product lines with products not sensitive to fluctuations in the steel market. Favourable industries for diversification are the mechanical engineering and plastics industries.

Marketing Organization

The organization of most of the German steel companies is characterized by a sharp separation of production and distribution. Producing almost exclusively for the inland market, and demand exceeding supply, are reasons why steel companies in former times had only a small marketing organization, often only hand-ling prices and logistics. Almost all the remaining marketing activities had been taken over by private steel dealers (distributors) or trading companies, sometimes partly owned by the steel mills. However, a growing export orientation, a change from vendor to buyer markets, and the desire for better control of output has led to a stronger involvement of the steel mills in marketing activities and the improvement of marketing organization. These `reorganizations' resulted in two-fold marketing channels. On the one hand exists a network of local and regional independent steel dealers buying from different sources. On the other hand, most of the great steel companies have built up a company-owned channel consisting of subsidiaries, often competing with the free dealers.

THE COMPANY: STAHLWERKE AG

Stahlwerke AG could be seen as a `model' of the German Steel Industry, confronted by similar problems and a typical history, following the already described pattern of development, e.g.

1. a phase of entrepreneurial foundation in the past century.
2. an enlargement of capital stocks by founding a limited company (Aktiengesellschaft).
3. the construction of a vertical conglomerate by merger.
4. the period of the Hitler regime and disentanglement.
5. the after-World-War-II rehabilitation and steady growth.

Confronted with the above mentioned structural problems of the German steel industry, Stahlwerke AG successfully overcame the disadvantages of plant location by merging with a multinational concern, securing access to mills situated at the coast. Now, being part of a diversified and still diversifying multinational conglomerate with 90,000 employees and a turnover of £2.5 billion, Stahlwerke AG is concentrating on a reorganization of its marketing channel and an improvement in its marketing activities.

MARKETING CHANNELS AND MARKETING PHILOSOPHY

Until 1971, Stahlwerke AG sold its products through a twofold marketing channel in accordance with its marketing strategy. On the one hand existed (and still exists as a division of the new conglomerate) a legally independent company, Stahlhandel GmbH, interlocked with Stahlwerke AG by capital (financial) bonds. The original domain of Stahlhandel has been the sales of Stahlwerke AG's output. In the course of time their domain extended so far, that Stahlhandel now sells, besides the products of Stahlwerke AG, products of Stahlwerke's competitors as well as finished steel products, chemicals, products of plastic industry, and oil. These products are sold through a network of sales offices (Germany) and subsidiaries (abroad). On the other hand there exists a channel of independent, private steel dealers importing and exporting steel products. These free distributors are customers of Stahlwerke AG as well as of Stahlhandel GmbH. The dependence of Stahlwerke AG on this channel varies with the market situation, being low in times of demand overload and being high in times of demand weakening.

The existence of both channels can be explained as a historical development of the German steel industry and Stahlwerke AG being in former times primarily production and home market orientated. From the picture drawn, it should be clear that a consistent, strategic market control cannot be achieved by Stahlwerke AG. The consciousness of the need for a coordinated, efficient marketing strategy led, in 1971, to the construction of a third `marketing channel' totally under the control of Stahlwerke AG. A new sales and marketing department has been organized, which is intended to overcome the weaknesses of the traditional marketing channels. The new marketing concept aims at providing better technical advice and giving more attention to large customers. In those cases of extraordinary business relations, the subsidiaries of Stahlhandel GmbH only act as `post boxes'. Normal business relations and transactions are the responsibility of the subsidiaries.

After the foundation of a subsidiary in Sweden, the marketing organizations in the four countries are identical. The subsidiaries have 6—8 employees. Their main tasks are acquisition, maintenance of business relations, conclusion of agreements with customers of minor importance, and, within limits, technical advice. Important customers and problems in technology are automatically handled by the German marketing (sales) department, which increasingly takes over the task of acquiring large customers. How this new marketing strategy affects customer relationships will be shown in the following descriptions of customer relationships.

Table 1 The characteristics of the five customers

Attributes of the Relationship	Customers				
	France	Italy	Sweden	UK 1	UK 2
Products sold					
– type	plates 5 mm–6 cm	plates 5 mm–6 cm	thick sheets	thin sheets	thick plates
– use	tanks	tanks	ships	car-body	ships
– characteristics emphasized in marketing	thermo- and pressure-stable materials. Quality and punctuality of delivery		to Lloyd's specification	high quality	quality and punctuality of delivery
– part of total sales volume to country	100%	100%	70–80%	100%	80%
The Customers					
– size	medium	medium	very large	very large	very large
– first contact	1970	1972	1960	1960	1967
– international orientation	domestic	domestic	international	multinational	multinational
Dependency on customer					
– % of country-specific sales volume	80%	75%	40%	40%	30–35%
– number of customers	1	3	3	25	4
– share of customer's purchases	50%	30%	5–8%	10%	10%
– deliveries	4/year	4/year	monthly	weekly	monthly
Development of relations					
– past	increasing/steady	decreasing	decreasing	increasing	decreasing
– future	steady/increasing	constant	decreasing	slight increase	decreasing
Sales value (£)	150,000	175,000	0.5 million	6.2 million	1.25 million

THE CUSTOMERS

Table 1 gives an overview of the most important characteristics of the five customers, which are handled by both Stahlwerke AG's export department and the subsidiaries of Stahlhandel GmbH in the respective countries. Some differences and similarities in the character of the relationships are worth being reported.

It would appear that the products sold are similar in the case of the plates, but, in fact, they are quite different in surface, density, thermostability, corrosion resistance, working, and welding characteristics. However, the production of these different kinds of steel sheets causes no technological problems. As with thin sheets, the steel delivered is a standard product, the `mixture' of which is chosen according to the needs of the user, implying a certain amount of technical advice. Till now, the exchange of technical ideas bears more resemblance in character to co-ordination conferences than to a genuine problem-solving process. In future Stahlwerke AG sees opportunities for an improved technological advice.

The `history' of the relationships likewise differs in age and in turbulence. The relations with the tank constructors are of recent origin, showing a certain steadiness during times of growth (France) and of decline (Italy). A declining economic situation in the past can be held responsible for the loss of customers in the remaining cases. The socio-economic patterns of the relations vary, with regard to friendliness and intensity, too. The middle sized companies are characterized as loyal, pleasant, and unproblematic customers without an aggressive buying policy. Though the purchasers at the British shipyard are known as hard bargainers, there has evolved a climate of mutual trust, classified as close personal contact. The Swedish customer and the British car manufacturer are perceived as very important, though unpleasant customers. High technical and commercial competence in these cases is matched by an aggressive buying behaviour which excludes close personal relationships.

MARKETING STRATEGY AND INTERACTION RESULTS

The thick-plates are standard products. The customer communicates the specifications and further technical problems do not occur. Therefore, with the exception of the Swedish shipyard, no significant product modifications have been necessary. In the latter case, the customer wanted markings on the sheets. Minor changes to the product and production process are made in the relationship with the car manufacturer. Before production in both plants can start, special preparatory tests are carried out with diverse materials to find out the correct qualities. Once the right qualities have been determined, the products become standard. Technical advice is given to all customers. The car manufacturer occupies a special position, being serviced by an independent service centre which keeps stocks. In all cases, the delivery conditions, particularly the timing, have been slightly modified according to the customers' wishes. Altogether, the minor technical modifications correspond to the picture of a standard product, though there remains some doubt as to whether a marketing strategy, which is adjusted to

provide a better technical advice, has a wide range of application in a field of such standard products.

This marketing strategy has its greatest strength in the possibility of building an atmosphere of mutual trust, demonstrating to the customer Stahlwerke's willingness to help, together with its technological know-how and experience. The `personalization' of relationships, shown in the communication pattern and information exchange, has been a distinctive feature of any particular success achieved.

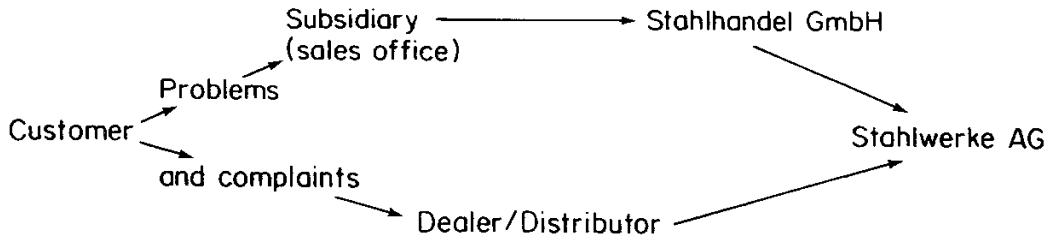
The communication with the French and Italian company usually is maintained by the subsidiaries, involving only a few participants on the customer side. It is a typical commission business, controlled by the marketing department via impersonal channels, i.e. written messages. The significance of the relationship is further characterized by the fact that the senior managers of Stahlwerke are not involved in the communication pattern. Regular visits, supplemented by circulation of the company magazine, are the media by which information is exchanged about the product programme, prices and marketing organization. On request, both companies give information about the market situation, expectations, and, within limits, competitors' prices.

This information is given to and received from the shipyards too, and is complemented by an exchange of technical experience. The exchange of information with the British shipyard is particularly close and friendly, the reason being that strictly confidential information is communicated. Their technical competence enables both shipyards to suggest product improvements. Stahlwerke AG reciprocates by solving welding problems and educating the shipyards' welders. In both cases, the intended one-way technical advice to customers is replaced by a two-way problem-solving and communication process, showing that behind the formulated marketing strategy is hidden the wish for an intensified interaction, but under the direct control of Stahlwerke AG.

Compared with the shipyards, the communication network with the British car manufacturer is woven less dense. Though we can find contacts on the highest management levels, they are more exceptional than in the cases of the shipyards. These rare, direct contacts are compensated by intraorganizational information flow keeping the managing boards well informed. The great bulk of `standard' information is channelled through the British subsidiary of Stahlhandel GmbH. Considering the great importance of the customer, the communication pattern seems to be under developed.

CONCLUSIONS

Historical analysis of the German steel industry has shown some reasons for the present two-fold distribution channel and the `atmosphere' of the socio-economic field in which the individual interaction is embedded. The existing two-fold distribution channel only allowed a somewhat loose control over the ultimate buyer, for example problems raised and complaints had to pass through all the links in the chain, as shown below.



The main task of the new marketing department is the building up of close contacts with large customers by means of better technical advice. However, the relationships with the shipyards show that, at the moment, the technological potential of Stahlwerke AG gives no grounds for superiority. Although attention to the issue is of primary concern, that of technical advice has been of minor success; the techno-commercial mutual dependence has led to a close co-operation. These two relationships take on the characteristics of symbiosis, in which supplier and customer alike gain from and feed upon each other. Neither party is parasitic nor independent of the other.

Co-operation between Stahlwerke AG and those customers identified in the five relationships has been of different closeness. In a somewhat speculative manner we can trace back these differences to various degrees of matching of Stahlwerke AG with the interacting companies' identity, as subjectively perceived by the respondents. The matching of `identity' is not a matter of absolute or relative figures, open to quantification. It is a perceived aggregate of sentiments and feelings about environment, atmosphere, market situation, and the partners. This perception of companies' matching identity is itself a collective, iterative, intensifying and diminishing process; it implies, as a prerequisite a direct, personal relationship. This could be a possible explanation for the `personality' expressed in the relationship with the shipyards whereas, despite all other differences between individual customer and despite the general friendliness of the contacts, the relationship with the Italian or French company and the British car manufacturer gives a corresponding impression of being `impersonal'.

BRITMET — A Marketing Case Study of a Large Producer of Special Steel Products

Peter W. Turnbull

INTRODUCTION

Britmet produces highly specialized steel products for sale to companies in a variety of industries. In most cases the customers for Britmet's products are themselves large batch or process production manufacturers. Britmet's basic products are usually reprocessed by the customer, most commonly by re-forming processes, before being incorporated into a component or finished product.

The case is comprehensive insofar as it describes a number of aspects of marketing strategy, organizational adaptation and interpersonal contact patterns. In order to allow the reader to understand the dynamics of these aspects, an

extensive description of the company is given which emphasizes its historic development and the environment under which it operates. The major issues raised in the case analysis are:

(i) The process of strategic and tactical marketing development of a large processed raw material producer seeking to establish a firm foothold in European markets.
(ii) The belief in long-term relationships as a basis of marketing strategy.
(iii) The implications of environmental variables and market structure for the nature of the company's interaction with customers across national boundaries.
(iv) The way in which interpersonal contact patterns vary in different country markets.
(v) The way in which a customer relationship may develop to a point of extreme dependence on the supplier.

THE COMPANY

Sales Turnover and Policy

Britmet is a subsidiary of a very large private UK group. It is a manufacturer of processed raw materials.

The company employs 10,000 people of which 115 people work in the sales department. Turnover in 1976 amounted to over £50 million of which nearly 40 per cent was exported. Due to the problems of the UK economy in recent years, the Company has sought to export a growing proportion of its output. Export sales have grown rapidly from zero in 1970, £10 million in 1972 to a present level in excess of £40 million. This export sales growth reflects an active world-wide sales drive to boost exports. Sales to Europe now account for about one third of all exports; the larger part of the other export sales are to North America and the Middle East.

Figure 1 shows the relative importance and market share data for the five European countries on which the research focuses:

Country	Sales in country as % Total Turnover	Approx. Market Share %
U.K.	60.0	40
Germany	6.8	<10
France	1.4	10
Sweden	2.3	90
Italy	2.3	30

It can be seen from Figure 1 that the four foreign European countries together account for nearly 13 per cent of Britmet's total turnover and that the Company has achieved substantial market share penetration in Sweden and Italy. Indeed, in Sweden Britmet is almost in a monopoly position for the products considered. Britmet has pursued an active policy because it believes that export sales have helped fill underutilized capacity in recent years and that profit margins on such business have been better than in the home market.

Britmet's export strategy has been to identify potentially large and profitable markets where it believes it has a competitive advantage in terms of technology or price and then to attack those markets vigorously on a sequential basis, rather than to spread its resources across too many markets at once. Thus, within Europe, Britmet has progressively approached a number of countries with a substantial marketing effort and has achieved considerable success. Within each country market Britmet has tried to avoid `destructive' marketing i.e. obtaining `too' large a market share, which would stimulate aggressive reaction from domestic competition. Despite this approach, Britmet have obtained a monopolistic supply position in Sweden, a point discussed later in the case.

The basis on which Britmet has penetrated European markets has been one of offering a high level of technology, both in product quality/specification terms and in technical advisory service for product processing and usage.

The Company believes that this approach is most appropriate for customers who themselves are of high technological competence and it is from this type of customer that Britmet has obtained the bulk of its business. Because of the nature of the Company's products and their usage, Britmet believes its markets to be long-term in nature, in which customers are concerned to establish long-term relationships with suppliers of consistently high product quality and service, price being of secondary importance.

Company Marketing Organization

Britmet's marketing activities are organized by customer industry in the home market, with specialized user industry sales managers and representatives being supported by a centralized customer service department. For export markets, a geographically orientated organizational structure is employed. Thus, there is a market manager and representatives for each major country market who are located in that country. Each country based sales team is supported and directed from the UK Head Office. Sales support from the UK is in the form of technical and commercial advice and market research information. The UK based export sales manager is often involved in discussion and negotiation with major customers in each country.

It has been Britmet's explicit policy to establish salesmen located in each country, rather than to the use UK based salesmen. More importantly, the company has employed local nationality salesmen in countries where it believes this necessary to establish business in that country. Thus, local nationals are employed in France, Italy, and Germany, whilst a UK national is employed in the

Scandinavian market. The reasons for these choices are discussed in the country market sections below. It is interesting to note the much greater personal selling effort required in the developing export markets compared to the established home market. Figure 2 summarizes the sales force for each country market:

Country	Approx. current Turnover	Current no. of customers	No. of companies being approached	Total Sales-force (a)
U.K.	£60M	60	3	14
Germany	£8M	10	12	8
France	£3M	15	30	4
Sweden	£5M	3	–	1
Italy	£5M	4	3	3 (b)

Fig. 2 Sales force resources compared with turnover and customer by country

Notes:

(a) Direct salespersons based in the country including sales managers and agents employed full time on Britmet's business

(b) All agents

MARKET STRUCTURE

As previously noted Britmet sells the greater part of its product into two industries – the metal re-processing and stockholding sector and domestic appliance manufacturing industry. In the UK the Company deals with over 60 customers, many of which are of relatively small size and the top 3 customers account for 60 per cent of UK sales. In export markets, Britmet's policy of selective development means they deal with very much smaller numbers of customers, mostly of substantial order sizes. In the export markets a much more active market development policy is being followed as shown in Figure 2.

Each country market is now described in general terms. In the cases of the UK, Germany, and Italy, a specific customer relationship is examined.

The UK Market

The home market is, as shown in Figure 1, by far the largest individual market for Britmet's products, accounting for 60 per cent of total sales. Britmet believes it has a 40 per cent share of the market. The market, in common with most world markets, is in a depressed state and it is estimated to be operating at about 60 per cent of capacity. Although Britmet believes the market will return to earlier levels of demand they do not expect either a dramatic increase or that they will substantially increase their own market share. Thus, they believe their sales levels to

be dependent on market fluctuation rather than on market development policies. This belief underlies the Company's export drive.

The structure of the UK supply industry is one of a small number of UK suppliers dominating the market, i.e. the six largest suppliers accounting for 85 per cent of industry sales. There is no foreign competition. The remaining market is taken up by about 60 small producers. The market for the products is similarly dominated by a small number of customers, i.e. the six largest customers accounting for about 70 per cent of sales whilst the remaining sales are divided among about 60 small customers. Britmet is the largest supplier in the UK market and its largest competitor is thought to have about 20 per cent of the market (i.e. half that of Britmet).

The organization of selling to the UK market is illustrated in Figure 3. There are five sales representatives based in the field, supported by five sales assistants and the customer service department based at the Company's head office. The selling force is controlled and directed by three user industry managers and the UK Sales Manager.

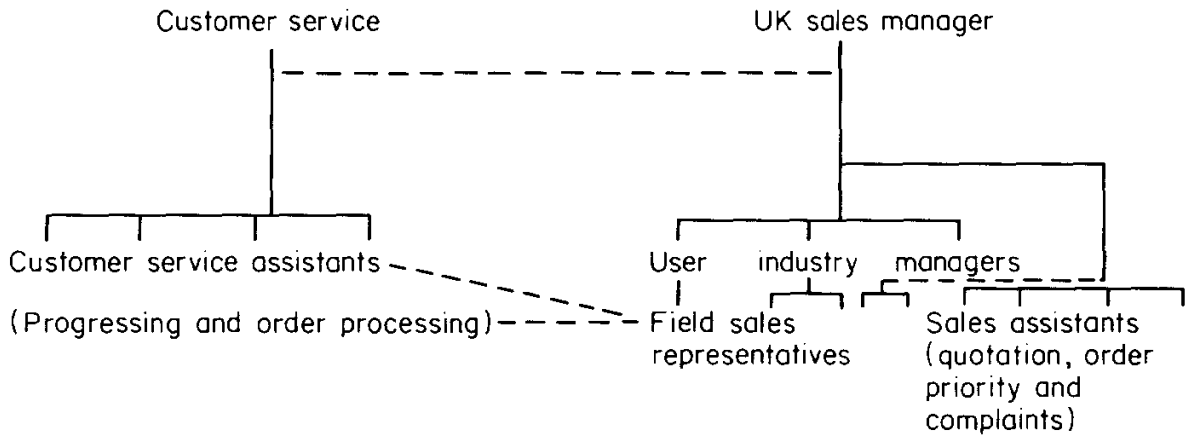


Fig. 3 The domestic marketing organization of Britmet

Sales representation is specialized by type of customer and representatives are responsible for maintaining contact with customers on a regular basis and for developing new business. Industry and sales managers are responsible for large customers, negotiation of new contracts, and handling major complaints.

Britmet believes its competitive advantage lies in its technical competence, wide product range, frequent innovation, and its high level of technical and commercial service support to customers. Price and quality are not seen as important competitive variables. Britmet's delivery performance is considered worse than that of competition but is offset by the other factors mentioned above.

The UK Customer — Steelflow Ltd.

Steelflow is the largest single buyer of Britmet's products, accounting for over 25 per cent of Britmet's UK Sales. It is a medium sized company (turnover £20—30 million per annum) with a domestic orientation, producing products on a very

large batch or process production line. It is important to note that Britmet is a major shareholder in this company and has a representative on their board. Arrangements exist which give Britmet a major advantage over competition. Steel-flow has contracted to buy at least 80 per cent of its product requirements from Britmet and currently Britmet supplies 85 per cent of their requirement. Thus, the relationship between Steelflow and Britmet is not similar to the relationships Britmet has with other large customers.

Britmet has been supplying Steelflow for over 50 years and took a share in the company about 12 years ago. Therefore, very strong and close relationships exist and have existed for a great number of years; these relationships are facilitated by the fact that Steelflow is situated only three miles from Britmet's head office and personnel from both companies are in frequent and close contact, both professionally and socially. As might be expected, from the above situation, there has never been any major problem or crisis between the companies at least during the last 12 years. The interaction is such that problems are dealt with before they develop.

It is not suprising that Steelflow is seen as a very loyal, supplier-orientated, friendly, and sympathetic customer. It is seen to be technically competent, but not outstandingly so; it is considered rather a conservative and not a dynamic company, with little prospect of major growth in the future. Steelflow's requirement of Britmet is that it provides a total problem-solving capacity, i.e. a total product range, continued product development and rapid and high quality technical service, whilst maintaining `acceptable' product quality and price. Deliver lead time is less critical than delivery reliability which is of paramount importance. Steelflow expects, and receives, exceptional treatment on delivery schedules and deliveries are made daily from special stock held by Britmet. It is evident that Steelflow provides Britmet with an important and relatively stable cash flow, without the demands for exceptional product technology or quality that comes from customers in other countries. Thus it is a `comfortable' relationship, much valued by both parties.

Adaptations

Given the very special relationship between the two companies, it is perhaps surprising that Steelflow has made few major adaptations to accommodate Britmet. Steelflow has installed larger machinery to handle larger product deliveries but this was to Steelflow's advantage because it provided major cost savings. The main adaptations have been in the information given to Britmet; Steelflow supplies much more technical and commercial information than any other customer and Britmet is kept fully informed of future policy, market situation, etc. Britmet has adapted to Steelflow's requirements in several major ways; it has developed special products for Steelflow, as well as adapting its stock-holding policy. Commercial and technical information is made readily available to Steelflow. Indeed, the two companies meet frequently to discuss each other's production and marketing strategies and plans.

Contact Patterns

As might be expected the personal interactions between the two companies are very extensive and frequent. The number of people involved on each side is too great to identify accurately. However, at least 20 senior managers in each company are involved in meetings with about half that number being regularly and frequently in contact.

Monthly, formal meetings are held at senior level at which future policy, product development and pricing matters are discussed. These meetings are supplemented by a weekly meeting between the sales manager and Steelflow's Commercial Manager where details of purchasing policy are dealt with. Detailed planning schedules and problems are dealt with at almost daily meetings between sales and production staff from each company. Technical staff from both companies are involved with similar frequency and levels in the organization. A very high level of social interaction also occurs at all levels between the companies; staff meet together for lunch, etc., and about once a month planned social meetings are arranged, e.g. football and cricket matches, dances, etc. This high level of social interaction is quite unique in Britmet's customer relationships.

Britmet believes the very close interpersonnel relationships with this customer have been vital to not only the development of the current level of business but also the `ease' with which the business is continued. Few problems occur, and when they do they are quickly and amicably settled. A high level of mutual trust and loyalty exists and both companies are confident that the relationship will continue indefinitely.

Germany

This is the largest European market and was the first of the European markets which Britmet attacked; the marketing drive beginning in 1970. Britmet now has sales exceeding £8 million to 10 German customers and believes it has a 10 per cent market share. The market is fairly concentrated, the three largest customers together accounting for over 50 per cent of Britmet's sales to Germany. It should be noted that Britmet is not now seeking to expand its market share significantly in Germany because of fears of retaliatory action either by local competition or by the German Government. There are currently import regulations restricting UK based imports to 10 per cent of total market sales. The major competition faced by Britmet in this market comes from domestic suppliers and the three largest competitors account for about 40 per cent of the market. There are no other major importers to this market. Britmet believes its main competitiveness lies in its technological (metallurgical) expertise, giving it a better product range and quality. It has no great price advantage, and also believes it has a worse delivery and stock service. The Company operates a sales office employing four German nationals, together with an agency arrangement whereby a further three agents are working full time with Britmet's customers. The German sales operation is supported by four sales assistants, a section leader and the area sales

manager based at Head Office in the UK. Britmet believes that the use of German nationals was, and is, essential because of the commercial complexities of the German economic and business system.

Sales representation is specialized by type of customer. The German sales office and agency are responsible for day-to-day liaison with all customers and for negotiation with smaller customers. Negotiations and problem handling for the larger customers is dealt with directly from the UK and the section leader and sales manager visit all large customers at least four times per year. The identification and initial approach to potential new customers is the responsibility of the German sales office, but once contact is established initial negotiations are taken over by the Area Sales Manager.

The German Customer — Gunter GmbH

Gunter GmbH is a very large company with turnover greater than £50 million per annum in large batch production of domestic consumer durable products. The Company is internationally orientated with substantial export sales to all parts of the world and an internationally based procurement policy. Gunter buys special metal from Britmet against a wide range of metallurgical specifications.

Britmet supplies 20 per cent of Gunter's requirements for this type of product and Gunter accounts for about 40 per cent of Britmet's sales to Germany. Business has developed to the present level since 1970, although twice during this period Britmet has completely lost the business when its prices became uncompetitively high. On each of these occasions Britmet maintained close contact with Gunter and regained the business when it was able to offer competitive prices again.

Gunter is seen as a highly competent and knowledgeable customer, both commercially and technically; it is professional in its approach to negotiation and is felt to be a hard bargainer. It is an `open' customer, insofar as it freely gives Britmet information on its research, production, and marketing plans and activities. Equally, Gunter demands a similar openness from Britmet and maintains a very close contact with all parts of Britmet's operation. Gunter's organization is highly formalized and purchasing decisions are clearly defined and proceduralized. Purchasing is accorded high status in the Company and buying staff are of very high technical and commercial competence. The requirements of a supplier are that he can supply consistent quality exactly to specification and that he is able to quickly modify his product to meet new standards. It has been Britmet's ability to meet these requirements that have allowed it to obtain the business. Delivery reliability and price, whilst important, are of secondary important to this first criteria. Nevertheless, price and delivery must be of at least acceptable standards and, as noted, Britmet has twice lost the business when its prices became much higher than competitors. Britmet's delivery is thought to be worse than the competition in lead time, but it is the reliability of promised delivery, rather than actual lead time, that is perceived as most important. Thus,

Britmet has established special transportation arrangements using chartered ships, to ensure delivery to schedule. Britmet also maintains a buffer stock in the UK for this customer. The major service provided is that of technical advice regarding metallurgical specifications and product characteristics; Gunter is seen to use Britmet very extensively for such advice because, Britmet believe, they are at the forefront of technological development in this field.

Adaptations

Britmet believes that Gunter had made a number of adaptations in order to maintain business with them. The major adaptation has been in Gunter's stockholding policy whereby Gunter has established a higher stock level than usual because of Britmet's longer delivery lead time. For the same reason Gunter had adapted its production schedules. At the same time Gunter has established very close relationships with Britmet and supplies extensive commercial and technical information to Britmet which Britmet does not normally obtain from German customers.

Britmet has also had to adapt in a number of ways; the primary requirement of Gunters has been for special product adaptation and development. Britmet now supplies a product of a specification not supplied to any other customer. Britmet has also had to introduce special quality control procedures and a higher level of technical advisory services. Gunter also demanded that Britmet give them early warnings of change in product range, prices, and industrial relations problems and Britmet has organized regular policy meetings with Gunter at which these topics are discussed. It is interesting to note that, in contrast with the Steelflow relationship in the UK, this German customer has made major adaptations in terms of stockholding policy, production, and information provision.

Contact Patterns

The personal contacts and relationships between Britmet and Gunter can be defined in several dimensions:

Direct Contacts between Britmet's UK HQ Staff and Gunter

Three UK-based sales staff have regular contact with Gunter. These are the Section Leader, Export Sales Manager, and European Sales Manger. The contacts are primarily with two senior purchasing executives (i.e. the Chief Buyer and his assistant) and with three senior engineers (i.e. the Chief Metallurgist, the Chief Production Engineer, and the Chief Designer). Britmet's commercial Manager and Export Sales Manager are also in regular but less frequent contact with the Managing Director and the Chief Buyer in Gunter.

All these contacts are felt to be vitally important to the maintenance of the relationship with Gunter. The high level contacts are normally concerned with future policy and plans, and regular meetings are held four times a year for this

purpose. The contacts between the Area Sales Manager and the Purchasing or Engineering staff are seen as very important because contract negotiation, order size, quality, and delivery terms are established in meetings at this level. These meetings occur at least four times a year and sometimes every month.

Contacts between Britmet's German Sales Office Staff or Agents and Gunter.

These contacts are also seen to be important. Frequent liaison occurs through which minor problems are resolved and the progress of Gunter is monitored for Britmet. Britmet believes that these contacts, which occur as often as once a week, help ensure that major problems are anticipated and dealt with before they arise; also through them, Britmet is able to monitor its performance *vis-a-vis* the competition.

Contacts between Britmet's Technical Staff and Gunter

Although the Sales Management of Britmet are in close contact with Gunter's engineering staff, these contacts are supplemented by Britmet's engineers (metallurgists, quality controllers, and production management) who almost always accompany the sales personnel on their visits to Gunter. These contacts are seen as being vital to maintaining Britmet's technological services to this customer.

In summary, contacts are of four kinds:

high level, regular meetings held in Germany and the UK for policy and planning discussions.
senior sales — purchasing contacts on a regular and frequent basis mainly at Gunter for negotiations and commercial problem-solving.
lower level sales — purchasing contacts on a very frequent basis between German based sales staff and Gunter dealing with routine matters.
senior Britmet Engineering — Gunter Engineering contacts on a regular basis by which technological developments and problems are dealt with.

It is worth noting that Britmet stressed that much of the high level contacts, whilst dealing with specific policy issues, are seen as a vital process by which Gunter maintains confidence in Britmet as an important and valuable supplier.

Italy

Italy is the most recent of the European markets that Britmet has entered. The Italian market is estimated to be less than a tenth the size of the German market and was seen to be a difficult market to approach. It was only in 1975 that the Company gave any substantial attention to it. Sales have grown rapidly, but erratically, to the present level of £2.3 million per annum which Britmet estimates to give them about a 30 per cent market share. As expected, the market has

proved to be very volatile, with sales varying substantially. Indeed, the market is seen to be so volatile that Britmet does not intend to expand sales volume in this market in the foreseeable future. Although Britmet believes that there is potentially a high growth market in Italy, they wish to restrict their activities because of the political and exchange rate volatility. They have also experienced difficulty in understanding Italian customers; the Italian `way of doing business' is seen as unusual and difficult. Although the Italian temperament is recognized as very different from other countries, it is not perceived to be a problem once understood. Supplier companies do, however, have to adapt their way of doing business quite substantially to meet Italian requirements. Although Britmet has four customers in Italy, the largest customer accounts for £2.0 million (i.e. 87 per cent) of total Italian sales.

Britmet does not employ any salesmen in Italy but uses an independent agent who employs three salesmen on Britmet's work based in Turin, but directed and supported by an area manager and sales assistant in the UK. The agent's primary responsibility is to service the three smaller customers and maintain a liaison with the major customer. The main selling effort to the larger customer is done direct from the UK. Competition is almost entirely from Italian companies and the market is very price competitive. There are no importers to this market; in the past German companies have tried to penetrate the market but have been unable to compete on price.

The Italian Customer — Istal Ltd.

This customer, which accounts for nearly 90 per cent of Britmet's sales to Italy is a privately owned medium sized company, with a turnover of about £ 15 million per annum. Istal is involved in large batch production technology, taking Britmet's product and reprocessing it prior to re-selling it into the Italian automobile industry. It should be noted that Istal is owned by one man who runs it personally and takes a close control of all activities of the Company, including purchasing. Istal's primary requirements of Britmet are that they supply competitively priced products of high quality. It has been Britmet's ability to meet these requirements that have allowed them to become Istal's main supplier, accounting for 80 per cent of his total requirements for the product. Istal has only one other supplier. Istal will accept only small deviations on price and then only because Britmet supplies a higher quality product than any competitor. One other important requirement of Istal is that Britmet also provides an extensive technical advisory service; Istal does not have the usual level of technical competence within the Company and relies heavily on Britmet to supply the expertise which they lack. Britmet believes that their willingness to supply this service has been a major factor in obtaining and maintaining this business. Delivery reliability is important to this customer, although delivery lead time is less important. Britmet describes this customer as of `typical' Italian temperament — volatile and excitable, haggling over price and driving a hard bargain. Although functional responsibilities are clearly defined, purchasing is very informal in both structure

and procedure. As previously noted, the proprietor is involved in all major purchase decisions and personally negotiates the commercial aspects of contracts. The purchasing staff are perceived as highly commercially competent but very poor technically.

Adaptations

Almost all adaptations that have occurred in this supplier—customer relationships have been made by Britmet. Istal has made only one adaptation to its production and stocking policy in order to accommodate longer delivery lead time from Britmet than it obtains from other suppliers. On the other hand, Britmet has had to produce special product specifications and has established a very extensive technical advisory service. Britmet frequently sends metallurgists and other technical staff to Istal to solve technical and quality problems. Istal has also demanded and obtained extended credit terms from Britmet, together with a special volume discount structure.

Contact Patterns

The pattern of interpersonal contacts between Britmet and Istal, reflects the particular nature of the relationship between the two companies. The main contacts are maintained at a high level in Istal (i.e. with the Chief Executive and his Deputy, the Chief Purchasing Manager, and the Chief Metallurgist) through the European and Area Sales Managers in Britmet, together with the Chief Metallurgist and the Production Control Manager. These contacts are perceived as extremely important by Britmet. These contacts are supplemented by routine and regular contacts between the Italian Sales Agent and Istal's purchasing staff and between Britmet's technical staff at middle management level and Istal's purchasing staff. Britmet believes that due to Istal's lack of technical competence, their technical contacts at all levels have been of primary importance in maintaining a high level of customer satisfaction. The high level sales-purchasing contacts are essential to the commercial negotiation process; Istal expects such negotiations to be on a personal basis and, because of the protracted bargaining process, frequent meetings are a necessary feature of doing business with this customer. Britmet's Italian agent visits Istal, about once a week to deal with routine matters. A major benefit of this close involvement is the agent's ability to keep Britmet advised of problems which might arise and of new developments, competition activities, etc. Istal's personnel visit Britmet's UK office regularly once a year. This visit seems to be solely of a `social' nature by which the proprietor of Istal meets and maintains relationships with senior executives in Britmet.

Sweden

Britmet believes it is the monopoly supplier of the product it sells into the Swedish market. It sells a range of high quality specification metal products to three

customers, total sales amounting to £5 million per annum. There are no Swedish producers of the products and Britmet has obtained a market share in excess of 90 per cent. Although German competitors are continually trying to break into the market, because of quality problems experienced by Swedish customers in the past, they have not been able to obtain a foothold. French competition apparently cannot offer a sufficiently high product quality to obtain a share in the market.

The Swedish market consists only of the three very large companies which Britmet supplies. The market is expected to continue to grow steadily at about a rate of 10 per cent per annum. Price is not seen as a major factor influencing this market and it has been Britmet's ability to supply a full product range of consistent quality that has given them their dominant position. The market is seen to be very concentrated yet relatively easy to deal with. It is the only European market where Britmet does not use country nationals for sales representation; the Britmet salesman based in Sweden is a British national. Swedish customers are perceived to be highly competent, both commercially and technically, who know precisely what they want of their suppliers. They do not `bargain' or `haggle' over contracts and expect suppliers to state their contract requirement for price, delivery, lead time, etc., and then to adhere to them. Nevertheless, Britmet feels that it is often difficult to know exactly how they stand with Swedish customers, who are not so frank and open in discussions as customers in other countries. Thus, it is possible for a major problem to develop without Britmet being aware of it. As previously noted, Britmet's general strategy has been to avoid taking too large a share of country markets because of the potential retaliation of competition. However, since there are no Swedish producers, the Company has actively pursued the Swedish market and obtained its current position of sole supplier. Britmet is somewhat concerned about possible reaction from German and French competition, who, they feel, may try to obtain a foothold in the market by vigorous price cutting. The lack of price sensitivity in the market may, however, help them retain their market position.

France

The French market is estimated to be worth about £30—40 million (i.e. half the size of the German market) and Britmet has obtained less than 10 per cent market share despite an active marketing policy. It has proved to be the most difficult European market to penetrate because, it is believed, it is the most nationalistic and because French customers are difficult to deal with. Although Britmet has established a sales office in France, staffed by French nationals, it has not achieved the level of sales obtained in Germany, Italy, and Sweden.

Currently, the Company has 15 French customers and is in contact with another 30 companies. The customers are all relatively small in terms of their purchases from Britmet, although five of them are very large companies. In all cases Britmet is a secondary supplier. Britmet believes that it has not yet established any relationship in France which is of the close, long term nature which Britmet prefers.

The major difficulty which Britmet faces in the French market is the nationalistic attitude and the unique French specifications; the French Government has not so far accepted international product standards and Britmet has had to produce special products to meet the French standards. There is a very large nationalized French company that supplies about 90 per cent of the market needs. The basis of competition is product quality and delivery service, although price competition has been increasing recently. Britmet's poor delivery record probably accounts, in part, for its lack of success in the market; Britmet believes its quality and price performance to be at least equal to that of the competition. The French market has not so far been penetrated by competition from other countries. Although Britmet does not expect to obtain major sales growth in the French market in the near future, it anticipates a steady growth rate. This growth rate may increase significantly if changing exchange rates and UK costs continue to move in the UK's favour, making Britmet more competitive on price.

SUMMARY AND CONCLUSIONS

The following points emerge in this case:

(1) Britmet has during the past seven years pursued a clear objective of market development into European countries, within an overall policy objective of developing overseas markets to reduce dependence on the UK market, and currently overseas sales account for nearly 40 per cent of turnover. Britmet is very strong in the home market but believes it is unlikely to gain any substantial increase in market share and, therefore, has looked to overseas markets to provide sales growth.

(2) Britmet has aimed to penetrate each market by selective development of potentially large customers and believes that its success, in both home and over-seas markets, depends on its ability to establish long-term relationships with customers. It has encountered difficulties in achieving such relationships in both the French and Italian markets, for different reasons.

(3) Britmet's competitive strategy is based on several clear beliefs about market needs and environmental factors:

(a) the need to provide a high level of product quality, together with the supporting technical advisory service. The importance of price varies by market.
(b) The need to use local national and locally based salesmen in most European markets, backed by intensive technical and commercial support from head office, to provide the necessary level of service.
(c) The need to avoid `destructive' competitive reaction by limiting market share in each country.

(4) It is interesting to note that Britmet maintains its current level of UK sales (i.e. £80 million) with a field sales force of only 14 representatives yet requires eight representatives in the German market (sales of £8 million). This clearly demonstrates the different selling effort required in developing new export markets.

(5) The customer relationship in the UK described in the case is very unusual and is an extreme example of customer dependence on a supplier; indeed it is clear that the customer is so dependent on Britmet that it could almost be considered a subsidiary company of Britmet. This may account for Britmet's decision to take an ownership share in the company some years ago. The interdependence is particularly evident by the extremely close and intensive personal interaction between employees of both companies. Yet, despite this, the degree of technical and organizational adaptation has not been particularly great in either company and less than has occurred with customers in Germany and Italy.

(6) Britmet has achieved varying success in the different countries, from a virtual monopoly in the Swedish market to less than 10 per cent share of the French and German markets, and 30 per cent share of the Italian markets respectively. The reason for the differential success seems to be in the reaction of the different countries to overseas suppliers. Thus, in France, Britmet has had least success, due to the more nationalistic behaviour of French companies.

(7) Britmet perceives major differences between the countries in terms of customer expertise; German and Swedish customers are seen as highly competent, both technically and commercially; French customers are perceived to be reasonably competent whilst Italian companies are seen as having high commercial expertise but lacking in technical competence.

(8) Product adaptations have been necessary in selling to the major customers in all countries and only Italy has required Britmet to change its credit—payment terms, demanding longer credit than Britmet usually offers. It is interesting to note that customers in all four countries have themselves changed their stockholding policy and, in the case of Germany and Italy, their production scheduling to adapt to Britmet's delivery capability. This is the only adaptation common to all the four countries. The major German customer has been fairly flexible in its relationship with Britmet and has made a number of adaptations to accommodate Britmet as a major supplier. Customers in Italy, France, and Sweden have not been so willing to change their procedures or methods, but expect Britmet to meet their needs.

(9) Personal contacts are reported to be vital to doing business in all countries and Britmet's strategy of providing a high level of technical advisory service through personal contacts is a recognition of this. In Italy, this has proved of major significance in obtaining business. Britmet has organized itself, both in the UK and in each country, to facilitate personal relationships between its sales and technical staff and customer executive, purchasing, and technical staff. Nevertheless, the number of contacts and the frequency of meetings is much less with European customers than with UK customers. Britmet believes that, if it could achieve closer relationships and more frequent meetings with French customers, it could break down the cultural and nationalistic barriers that exist and achieve significantly increased sales. It is interesting to note that the Italian customer involves both a greater number of supplier personnel and a higher level of personal contacts than the German customer. These contacts are, however, made with a more limited number of functions in the Italian company than in the German company. This reflects a wider involvement of functions in buying in the German than in the Italian company.

BELTER METALS

David Ford

INTRODUCTION

This case concerns a moderately sized company producing unfinished and semi-finished specialized products for use in production line industries. The supplier's product technology and customer manufacturing technology conforms with cell 2 of our choice matrix. The Company has a turnover of approximately £50 million per annum and is the wholly owned subsidiary of a large North-American multi-national.

THE COMPANY

Belter manufactures semi-processed metal products and acts as a distributor in its territory for the similar products of the North-American parent company. Its `sale territory' is the whole world, excluding North and South America, Japan, the Far East, and Australia.

The Company sells to the Aerospace industry, General Engineering, the Chemical and Petrochemical industry, and the Electronics and Electrical industry. Sales to the Aerospace industry are down by 20 per cent from the previous year although this still represents Belter's largest market.

Belter attributes its success in the 1950s to its strategy of being a `complete range supplier'. Belter concentrated on flexibility of production of a wide range of products at the expense of output rates. The pursuit of a similar strategy today demands tremendous effort in technical and engineering terms to support the sale of over 10,000 product variants.

Although no competitor produces a similar complete product range as either Belter or its parent, there are at least two major competitors in each European country and four companies sell into Europe from the United States.

Belter faces wide cyclical fluctuations in its sales as a producer of semi-finished products. The Company had experienced an overall decline of 8 per cent in sales value in real terms from the previous year. In spite of this the Company has recorded a pre-tax profit of £7.9 million on sales of £44 million. This represented a pre-tax return on assets of 13.6 per cent.

MARKETING ORGANIZATION

Overall Organization

Belter's sales operations are split into three areas as follows;

(i) Sales Manger — UK responsible for 60—70 per cent of total sales. Four area offices handling all accounts, except two major ones which are managed from the Company's main office.

(ii) Sales Manager — Middle East, Africa, Eastern Europe, accounting for approximately 20 per cent of total sales. One manager plus two sales engineers. The Company is currently building up an agency—distributor network for this territory.
(iii) Sales Manager — Western Europe, responsible for the remaining 20 per cent of total sales. The sales manager is located in Brussels, with additional sales offices in Germany, France, and Italy.

The Brussels sales office is owned by Belter's parent group. All major commercial transactions are carried out by Belter's Head Office, although the Brussels . company does have some price discretion. This European sales company takes 85 per cent of its products for sale in Europe from Belter. The remaining 15 per cent of products are sourced from the North-American parent company. Apart from the European operation, all agents and distributors overseas are handled from the UK. All sales managers report to the UK Marketing Director, as does the UK Marketing Manager. The Marketing Manager has the responsibility for marketing services, applications engineering, publicity, and market research. The total UK marketing staff is 60—70 people.

Evolution of Marketing Organization

Belter has often faced problems in the distribution of its products; in France, for example, the Company had a combined agent and distributor operating until 1963. Belter provided applications engineering but had no commercial involvement in sales. The company found that it had no influence on pricing in the market and this led to a rather artificial pricing structure and to a decreased market share. This problem was not solved by the appointment of a second distributor. Mergers amongst French suppliers have led to more competition in the market. The second distributor did little to stimulate the first one or to improve the Company's overall penetration.

In 1966 Belter separated out a number of products and major customers which were not to be handled via distributors. These customers and products were to be controlled by the UK sales operation. Also, from 1970, the Brussels office ceased to have overall responsibility for sales to France and a Paris office was established.

The overall market situation faced in France (and in other European countries) is as follows:

There are many actual and potential users for some products, which are not known by the Company. Heavy competition exists especially on price, for large customers who are often buying what they view as a commodity product. Belter's emerging strategy has been to handle these large customers through its own sales offices. The Paris office actively seek sales of large volume products as well as acting as a `post office' for products specially developed for individual customers, which are then handled from the Company's main office. Small customers and small volume products are handled by the two French distributors.

The development process in Italy has been similar to that in France. Sales in

Scandinavia do not justify a local sales office; sales here are handled through a distributor from the Brussels office. A small number of major accounts are, however, handled directly from the UK.

Relationships Involving Product Development

Germany illustrates a second aspect of the evolving market structure facing the Company. Belter was the pioneer in the development of its particular metal products for high duty applications and its whole marketing approach has been based on a close relationship in the development of new products for particular applications with individual clients. The costs of this development work are not charged for separately to the client. Instead they are included within the final price negotiated for product deliveries.

Belter's main competitor in Germany produces a much wider overall range of products than Belter and is more flexible in its approach to selling, in order to fill its capacity for different types of products. This competitor does not have the same technical capacity as Belter. It has been quoted as saying;

`Belter do the development work — and we make the sale!'

Belter's problems over price competition have been made worse by three other factors; firstly, the Company has only one German national representing the Company in Germany, and his strengths are more in the technical than the sales area. Secondly, the Company's previous arrangement meant that they had contact mainly with designers rather than buyers. This meant that the Company's development work with a client counted for relatively little when the final sale was being negotiated. Finally, products of the type made by Belter are increasingly being used in more routine applications, requiring little or no development work. Flexibility in delivery and price competition counts for more in these applications than the technical skills of Belter.

However, Belter's main German customer is for a product with a `very difficult' specification. The initial sale to this customer was achieved because the Company could meet the specification required, and in spite of the level of price charged. The relationship with the customer has lasted for fifteen years without a single major product failure and annual sales are now around £600,000. During this time the customer is said to have pinned its reputation on the quality of Belter's product. It has made a number of modifications to suit the company, e.g. in the area of rationalization of requirements. The Company now believes that this customer is `totally sold' on the company. It would be possible for the customer to find another supplier, but failure costs would make the customer reluctant to do this.

This customer relies on Belter's strengths such as its high technical competence and a close relationship. Belter has clear difficulties in operating in newer markets where such high technical competence is not required and where price competition Is more vigorous. We can now analyse the nature of these close relationships in more detail by considering two major high technology customers, firstly in the UK and then in Sweden.

BUYER—SELLER RELATIONSHIPS

A Customer Relationship in the United Kingdom

The three aspects of the relationship which are studied are competition, technical development, and personal contacts.

This customer is Belter's largest and is responsible for 20 per cent of its total business. The Company operates in the aerospace industry at the limit of current technology. The relationship involves considerable development liaison on wholly new products.

Competition

Competition for this customer comes primarily from American suppliers. The competition is on price and reflects the spare capacity in the American industry. Competition from UK companies is also on price and comes from companies having a wider production spread than Belter.

Development

This customer has always relied on Belter alone for development work in this product area. However, they have looked to other sources of supply when development has taken place. The development process for a new product can be started either by a government development contract or by an order from the customer. Belter acknowledged that it has to stand the costs of this development in the latter case.

The customer has intimate knowledge of all of Belter's procedures. Methods of manufacture are agreed in detail and even the particular production machinery to be used is specified. The closeness of the relationship between the two companies is indicated by the fact that the customer has approved Belter's quality procedure and accepts their testing.

Contact Pattern

Interpersonal contacts between Belter and its UK customer are summarized as follows:

(1) *Formal Contacts*

Every six months

Technical policy liaison meeting, jointly chaired by Belter's Technical Director and the customer's Chief Materials Manager.

Every six—nine months

Commercial meeting, Belter's Managing and Marketing Directors and Sales Manager and the customer's Purchasing Director and Senior Purchasing Staff.

Monthly

UK Sales Manager visits customer's purchasing staff to discuss delivery and order positions.

(2) Other Contacts
These can be studied according to the formally assigned responsibility.

Personnel who have full-time responsibility
One sales office man has daily contact with the customer. Additionally, one applications engineer is engaged on work for this customer. Finally, one man determines market trends, and is in contact with the customer's marketing personnel and customer's clients.

Personnel with `half-time' responsibility
Four applications engineers also spend some of their time on the customer's problems and are in personal
contact with customer staff.

A Customer Relationship in Sweden

This relationship is with a Swedish company in the aerospace industry and the relationship is handled directly from the UK. Although sales to this customer are only 10 per cent of the total sales in Sweden, they represent 60—70 per cent of the customer's requirement for the product.

The most important characteristic of the product for this customer is that it conforms to the customer's chosen specification. No deviations in specification can be permitted, although some price fluctuation can be tolerated. However, there are constraints on this because a number of competing manufacturers have spare capacity for this product. Similarly, speed of delivery is not necessarily of paramount importance although the ability to meet a delivery promise is.

Adaptations

This customer is not at the same level of technology as the UK customer. This has meant that the Company has not had to modify its standard products for this customer or its production methods, as was the case with the UK customer. There have been no other adaptations by the supplier in this case. Similarly the buying company has not had to modify its product to suit the supplier. There have been occasions when it has modified its production schedules to meet the requirements of the supplier. The respondent was surprised that the customer had not asked for information about the supplying company. He assumed that this must have been carried out `at other levels' because of the strategic sensitivity of the products involved. The customer had frequently asked the supplier to solve particular problems especially when introducing new materials. The customer was said to be particularly good at design change procedures. Its organization and equipment was said to be very high although the customer did have some `alarming gaps in knowledge' which the respondent thought surprising in a high technology company.

Contact Pattern

This customer did not justify the same level of contact as the UK customer;

nevertheless the contact pattern was complex. Day-to-day contact is handled by Belter's Area Sales Representative, based in Brussels. Other company contact is from applications engineering (dealing with product changes and market intelligence), product development management (dealing with new products and opportunities), commercial staff (dealing with special price or delivery arrangements), and finally with the company's quality control and despatch. Approximately fifteen people from Belter are in regular contact with this customer. Thirty staff from the customer have been in contact with Belter. These include the Purchasing Manager, the Materials Laboratory Manager, the Design Engineers on particular products for the customer as well as Specification Engineering Staff who are involved in keeping up-to-date with current product development by Belter.

CASE ANALYSIS

General Background

This case illustrates the position of a company coping with a number of changes in its markets. These changes effect the nature of its company—customer relationships. Belter's traditional close relationships have been based upon its technical superiority for development work. A number of competitors can now match Belter's strengths in this area. Belter's products are now used by a wider range of customers and products where they are considered to be `standard' in their applications.

The greater availability of `standard products', and the reduced need for technical development, has caused price and delivery to become the basis of source decisions. This change has increased the importance of distributive intermediaries for Belter as it relies more on its `transfer ability' rather than its `problem solving ability'. Belter's production capacity is closely linked to its traditional policies of development and the production of a full range of variants within its specific product area. But these skills no longer command the price premium that they used to, and Belter cannot achieve the production economies of its competitors who have manufacturing facilities operating at a greater capacity, but are specialized in a smaller product range.

Adaptations

An extreme example of `informal adaptation' based on trust and commitment exists in the UK relationship. Belter designs and develops products specifically for this customer. The development costs are carried by Belter, but there is no contractual obligation on the customer's part to buy the subsequent product from Belter, although Belter aim to recoup the costs which have been incurred in the sales of production materials.

Institutionalization

The UK relationship has significant effects on Belter's organization and its

relationships with other customers. Belter's expectation of its own and its customers role in a relationship have built up over a long period of time. This is termed `institutionalization'. Another aspect of institutionalization is the separation of the technical from the commercial aspects of the relationship between the two companies. This means that the joint technical problem-solving can carry on almost independently of the subsequent commercial negotiations over production. This is particularly relevant in Belter's relationships with German customers, where Belter's development work has counted for relatively little in actual sales to customers. This separation was explicitly traded on by the Company's competitors and Belter was vulnerable to price competition after the development stage. The institutionalized patterns from Belter's long-term relationships has left the Company with a marketing organization and philosophy suited to heavy technical development and technical service requirements.

The Marketing Director of Belter has faced considerable difficulty in changing Belter from its institutionalized operations. The organization was `philosophically opposed' to competing on price. Its previous operations had been based on the assumption that customers would be prepared to pay a `fair price' for the Company's services. A greater emphasis on delivery and price competition caused considerable conflict with those responsible for relationships with the Company's `traditional' customers. The Company's changes in policy have involved more attention to the buyer in the early stages of a relationship and much more concern with the actual costs of any development work undertaken.

Dependence

Belter has the problem of managing its long-term developmental relationships so as to achieve the optimal level of closeness to its client. This involves on the one hand, efforts to convince its customer of its continuing commitment to a relationship. On the other hand it must seek to make the customer aware of and compete for Belter's available resources.

In conclusion, this case illustrates the extent to which informal adaptations can develop in the long-term relationship. It also shows how the institutionalization of a relationship need not be confined to that relationship but can extend to all aspects of a company's operations and its dealings with other customers. In other words it constitutes the `experience' that the Company brings to its other relationships. The case also shows the importance to both buyer and seller of limitation on the closeness and conduct of a relationship. Finally, it demonstrates the restrictions placed on long-term relationships by changes in the market and the need for a company to modify its relationship management in the face of these market changes.

SECTION 4.2 MARKETING OF COMPONENTS

This section is devoted to a description and analysis of various marketing problems relevant to companies manufacturing components. Five company cases

are used to illustrate many of the issues which characterize the interaction and relationships between component suppliers and their customers.

The components and parts manufactured by suppliers are used by customers for assembling and incorporating into their own products. In other words, the component supplier is a specialist in a specific part of the larger product. Typical examples are companies supplying brakes to automobile manufacturers or wheels for agricultural tractors.

The important marketing issues for component manufacturers can be categorized as (a) product knowledge (b) the need for both stabilizing and changing activities and (c) credibility.

CHARACTERISTIC MARKETING PROBLEMS AND STRATEGIES

The marketing situation of a component producer shows both similarities to and differences from the earlier situation discussed of raw or processed material producers. One very important difference is that the customer seldom refines a component one step further as it often does with raw material. Consequently, process knowledge is less central for the marketer of components than it is for the raw material producer. Instead a basic feature of a component producer is its product knowledge. The firm has to be both an expert in its product as a component as well as on the function of that component in the larger product. Therefore, an important strategic problem for this type of firm is to maintain and develop its product knowledge. Not only this, but it must understand the applications to which its components are put and be able to deal with customers who are likely to be knowledgeable about how the component works and affects the performance of the larger product.

Furthermore, the customers of its customers may also be knowledgeable about how the product is functioning as well as having knowledge about what they want for the future. If the product is an essential component in the larger product then its customers' customers may well have clear preferences for which component supplier should be used. In order to be able to develop its product knowledge the manufacturer of components thus must have close relationships both with certain of its customers and with its customers' customers.

Another important issue about which it can be argued that there are some differences between component and raw material manufacturers relates to the extent to which suppliers need fulfil both stabilizing and changing activities in their relationships with customers. The stabilizing activities of component suppliers are just as important as for raw material suppliers because customers often have very high demands for precision reliability in deliveries. The customers are often mass producing firms and have rigid production planning systems and schedules. Deliveries have to be stabilized and be in accordance with their systems. A lot of activities directed to improve the logistic function, therefore, have to be accomplished by supplier and customer. The stabilizing activities also are important in order to use the supplier's own resources optimally. Every new customer relationship may mean a substantial investment. This investment normally does not pay off directly, but only after a certain period of time. To make

major changes within a relationship or between many customers is very costly. Stability is obviously of paramount importance.

Paradoxically, changing activities are also a vital necessity despite the costs involved, because the Company has to keep up with its customers and competitors. Here there appears to be a difference between the raw material and the component manufacturer. These changes for the raw material manufacturer occur more slowly and in a continuous way while the changes for the component manufacturer occur more often as new designs are introduced or major modifications carried out in a more step-wise manner. Product development is especially problematic for the component manufacturer as it must be in accordance with individual customers' development of their own products. For this reason, close co-operation with some customers is often a necessity.

Thus, both stabilizing and changing activities are needed, but they can be difficult to unite within one organizational unit. One way to solve this problem is to divide the activities in such a way that one department or unit is responsible for the stabilizing and another for the changing activities. In this way it is possible to conceive of two parallel relationships being managed with one and the same customer.

The third key marketing issue for the component manufacturer which is very similar to that for the raw material manufacturer is its credibility. This applies especially to the firm's capacity to deliver, but it can also apply to the firm's product development capacity. The customer firms' success can be dependent on how effectively their component suppliers manage to develop their technology and total supply capability. Buyers can, therefore, be extremely sensitive to differences between the suppliers in this respect. In the same way as for the raw material producer it takes quite a long time for a component producer to build up a good reputation because the customers want to test the seller's abilities over a protracted period of time before making any final evaluation.

Therefore, product knowledge, the need for performing both stabilizing and changing activities, and credibility are three very important issues when designing the marketing strategy for a component manufacturer. Before discussing suitable strategies it is important to briefly consider the purchasing side of this kind of relationship.

In the same way as for purchasing of raw materials it is possible to identify two completely different ways by which a purchasing firm can use its component suppliers. The first way is to have a supplier as an *external development resource.* It is likely that the customer does not have the ability or the resources to develop all the components of which its own product consists, therefore, it needs to supplement its own resources with external ones. In these situations when the component plays an important role and/or is closely related to several other components assembled into the customer's final product, then the buying firm will wish to establish a very close co-operation with the supplier in order to be able to use the latter's resources as much as possible. Of course, the buying firm requires that the supplier should also be able to produce and deliver the product in an efficient and reliable way.

The second and opposite way of using the supplier is to see it primarily as an

external source of production capacity. In these situations the buying firm wants the supplier to produce one or several components for the final product in such a way that its own production or assembly line is not disturbed. The components are either so unimportant and/or so simple and standardized that the development and the design of them are not of great interest to the customer. Alternatively, the buying firm has its own resources to take care of any vital design and development problems. Important supplier attributes in these situations are low price and an ability to co-ordinate its production planning with the buying firm.

These two different purchasing strategies lead, if they are successfully implemented, to quite different supplier relationships and they are thereby making quite different demands on the supplier's abilities. Marketing strategies could, therefore, be formulated in relation to these purchasing strategies.

There are a large number of different strategies that a component manufacturing firm can adopt and implement. However, two basically different types of strategies can be identified. The first type can be characterized as product oriented and the second as customer oriented. The product oriented strategy implies that the supplier tries to emphasize its product knowledge in such a way that it will be more or less unique within its own area. In order to make such a strategy applicable there must be a technical space for such a specialization. On the other hand, the customer oriented strategy is characterized by the supplier's efforts to develop in close co-operation with certain customers. The aim is to give these customers exactly what they want and, in order to be able to do that, the supplier has to have a very good customer knowledge.

The connection between a firm's marketing strategy and its organizational and technical features was discussed in the previous section relating to raw materials marketing. The two marketing strategies identified above thus put quite different requirements on the technical and organizational design of the company. The product oriented strategy should be combined, for example, with large investments in research and development and in advanced production facilities. The customer oriented strategy, on the other hand, requires large investments in customer relationships; as a consequence, the design of the appropriate marketing organization will be of critical importance.

The two marketing strategies can each be combined with the two purchasing strategies. By doing so we get a four-cell matrix where each cell stands for a special kind of relationship (see Figure 4.2).

It is important to view these strategies as dynamic and not static. For example, some relationships may begin as development oriented purchasing strategies and may subsequently change to production oriented ones and vice versa.

The cases that are now presented exemplify both the characteristic marketing problems of component manufacturers and the purchasing and marketing strategies which have been identified.

Sud Composants A French firm's use of one of the basic marketing strategies is described. By developing its product knowledge within a narrow segment for a very common component this firm has managed to reach a favourable position

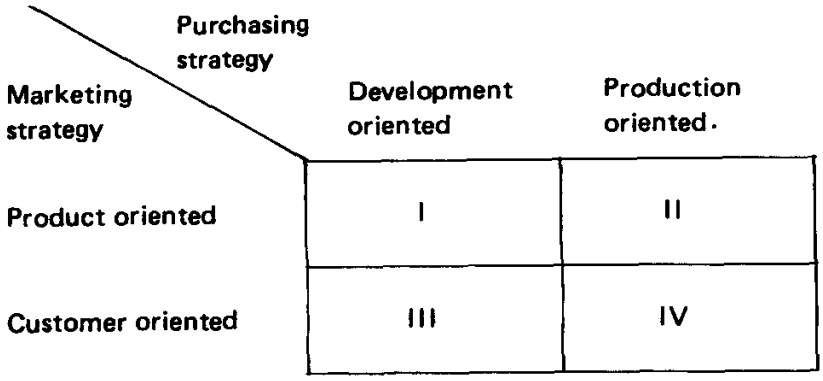


Figure 4.2 Four kinds of relationships defined in relation to basic marketing and purchasing strategies

in relation to its customers. However, every new customer is very resource demanding.

The firm's customers do not behave uniformly and the case shows examples of purchasing strategies where suppliers are used as an external development resource and as an external source of production capacity. Customer—supplier relationships of types I and II in the matrix shown in Figure 4.2 are described.

Autostart This case is an analysis of the relationships and resource implications of interaction between a UK component supplier and various European customers in the commercial vehicle industry. The interest is focused on two divisions within this firm. Earlier both appear to have had a customer oriented strategy. Now they are trying to apply the product oriented one. One division (Vacparts) has found this strategy directly useful whilst it has been more difficult to apply in the second division (Starsets). The difficulties of this latter division stem from the fact that its product is not complex enough from a technical point of view.

Francelec The French firm is manufacturing and selling components to producers of consumer durables. The product sold is technically complex and the three relationships analysed are all rather close with a lot of inter-company personal contacts and with an aim of achieving technical co-operation. The buying firms' need for exact deliveries is emphasized.

Mekanik and Motor This is a Swedish firm producing large and complex components for ships. (This case can also be seen as an example of another type of supplier concerned with marketing of equipment.) Apart from the problems already discussed in other cases, the Mekanik and Motor case identifies the difficulties of maintaining extensive customer relationships when the purchasing frequency is very low. This type of problem is particularly relevant to the marketing of many complex components and capital equipment items and will be treated more extensively in the next section. The importance of the role of customers' customers is exemplified in the case because these have special preference regarding the alternative suppliers of components. The analysis of the case places great

stress upon the importance of the social element in the marketing of such products. The lack of informal personal contacts is cited as one example of a serious disadvantage for the firm in one of its foreign markets.

Maschinentechnik GmbH and Motor AG This case has a different structure and content from the others. It takes up a certain problem and uses data from two different firms to illustrate it. The problem is how much and how many additional services customers can get from suppliers without paying extra for them. In the analysis a `power' approach is used. The conclusion is that the power concept is a promising way of explaining relationships, but that further analysis should be carried out.

SUD COMPOSANTS

Claude Marcel and *Michel Perrin*

INTRODUCTION

This case study deals with the sale of small components, and presents the following features:

- the product is very commonplace, and supply far exceeds demand: competition is extremely fierce and customers are very price-conscious.
- the number of applications for the product is unlimited, and therefore adaptation is a major problem.
- Sud Composants owe their success largely to their ability to identify the most worthwhile customers in each segment of the market, and to build up an intensive interaction process with each of them, which gives them an `edge' over their competitors. Sud Composants make themselves virtually indispensable to target customers, by often providing consultancy services as well as being suppliers.

THE FIRM

Although this firm is a subsidiary of a large group of companies, it has virtual autonomy of operation. The work-force totals just over 300. The group as a whole specializes in the manufacture of a multi-use component which is available in a wide range of power levels. Each subsidiary specializes in a relatively narrow power range, and Sud Composants manufactures a component at the bottom end of the power scale. The product itself can be broken down into three groups:

(i) standard products built to European norms (40 per cent of turnover)
(ii) products adapted to conform to various market standards (40 per cent turnover)

(iii) custom-built products (20 per cent of turnover)

Exports account for 20 per cent of sales turnover and the second product group alone accounts for almost 80 per cent of total exports.

Organization and Marketing Strategy

Sud Composants have an extremely varied clientele, that differ on such points as complexity of application, the importance of the component in the finished product, and the size of each run, etc. The firm's organization and marketing strategy were designed with this problem in mind.

Marketing Organization

The group is organized into branch offices (in France) and sales subsidiaries (there are almost 40 in the major user countries). The sales staff deals with all the group's products, but each company (e.g. Sud Composants) may have one on-the-spot salesman specialized in their product in the major sales subsidiaries. The marketing management at Sud Composants frequently back up the sales staff, especially when dealing with important target customers.

Strategy

As it is important to cover the entire market, Sud Composants have devised a strategy aimed at keeping out of the price struggle whilst acquiring a dominant position with regard to a small number of target customers, whom they supply with products adapted from the standard. These target customers are chosen from potentially worthwhile market sectors, on the basis of close interaction which is technically- or market-orientated, or both, as the case requires.

Sud Composants typically tend to supply a product adapted from the standard, thus avoiding price competition. Their technical organization enables them to make this type of adaptation at minimum cost, owing to their modular product design.

The strategy as a whole is illustrated by three factors:

- the biggest customers only account for 20 per cent of turnover: the client portfolio is therefore much less concentrated than is normal for industrial goods;
- virtually 80 per cent of export turnover is achieved with Group 2 products, which have been adapted to meet different standards;
- the great majority of business is done with regular customers (in spite of the wide choice of suppliers on the market), since over the last two years only 3 per cent of sales have been derived from new customers.

Finally, it should be mentioned that in most cases, each customer only buys one type of product.

RELATIONSHIP WITH THE GERMAN CUSTOMER

The German customer manufactures leisure equipment; he is highly export-minded and his product is mass-produced.

Sud Composants hold a very minor position in the German market. Their main competitors are two German manufacturers who have market shares of 30 per cent and 20 per cent respectively; suppliers from the countries of Eastern Europe, account for 25 per cent, mainly for standardized products.

Sud Composants consider that it is a competitive advantage for them to have a much smaller range than their major competitor. This enables them to allocate greater resources to certain limited segments which comprise a viable market for their products. In this way, Sud Composants find it easier to adapt to market requirements in these particular sectors, whilst their competitor attempts to impose its own standards. The technical aspects of the product do not vary: the component in question is of a particular design and is available in several sizes.

The initial contacts were made by the German sales subsidiary in 1973, during a campaign involving searching for new customer prospects. The Export Director was involved right from the beginning. The customer's problem was in fact a complex one because he was selling into a highly competitive market, and he wanted to gain a better market position by using a less expensive component. (Sud Composants' component accounts for over 40 per cent of the total product value.) Sud Composants' technical staff was involved in the relationship early on, and succeeded in persuading the client to look at the problem from a different angle, which in turn led to the development of a completely new product, in which the client's product was designed in terms of the component and vice versa.

This process did not stop the customer going ahead with normal feasibility tests, aimed at testing the reliability of the component. Then, when the product was ready to be marketed, new safety regulations were brought in for the finished product. The customer contacted Sud Composants on this, and the latter found a solution to the entire problem, (including those aspects which did not directly concern them), thus earning a reputation as `super consultants'. The strategy employed by Sud Composants with this customer consisted therefore of two principal phases:

— firstly, they set themselves apart from other suppliers by giving presale assistance (i.e. joint development of finished product).
— secondly, they acquired a position as `super consultants' having a high credibility.
— The example given above regarding safety regulations shows that Sud Composants had succeeded in gaining their customer's confidence, and in fact the client now consults them at every stage of product development.

As a result of this strategy, Sud Composants have become the client's exclusive supplier for this product, which may be regarded as an exceptional achievement, especially on the German market.

In 1976, the volume of sales to this customer reached several million francs (equivalent to almost £0.5 million), and at present it is limited only by the development of the end-product market, which the customer affirms as being open and on an upward trend.

The relationship with the German customer gives a good illustration of how Sud Composants react to an unfavourable competitive situation: they optimize a limited advantage over their competitors (by specializing in a restricted portion of the total range, which their best-placed competitors have to cover in its entirety), by approaching a target customer and instituting a procedure of close interaction with a technical bias.

RELATIONSHIP WITH THE ITALIAN CUSTOMER

Whilst Sud Composants' marketing organization and procedure in Italy remains more or less the same as that encountered in Germany, it differs slightly in that the subsidiary's four salesmen are partly responsible for technical assistance in addition to their normal duties of prospecting for customers. In this way production management are freed from a portion of the work involved in technical follow-up.

The overall contact procedure with the Italian client is very similar to that used with the German customer, apart from two aspects, as follows:

- the Italian client deliberately adopted a multiple-source purchasing strategy.
- the information-gathering aspect was of paramount importance in developing the contact process: information gained by impersonal means appeared to play a more important role than that gained by direct personal interaction in some cases.

The customer manufactures small construction tools designed for DIY enthusiasts and small firms of craftsmen. The product supplied by Sud Composants accounts for approximately 25 per cent of the product's total value. Contact was first made in 1972, in reply to an international call for a tender. Sud Composants had noticed that the market for the finished product was growing rapidly, and was already researching the design of a suitable component. The call for a tender speeded up this process, and Sud Composants were able to perfect the new product without contacting their prospective customer. The product was offered to the customer in response to the request for tenders and was immediately accepted. Sud Composants in fact only needed to make a few minor adjustments to the product designed `in abstracto', before commencing delivery to the Italian client.

However, Sud Composants only account for 60 per cent of this customer's requirements. One would think that they could have obtained more, or even achieved exclusiveness, by adopting a closer interaction procedure with a view to designing an entirely specific product, as was the case with the German customer. Unfortunately, Sud Composants were faced with a policy of multiple-source

buying, and feared that the additional effort expended would achieve virtually nothing in this case. It is clear that the client felt that the dangers of having a sole supplier far outweighed the advantages, and this may be explained by certain aspects of the Italian situation.

The customer had the choice between the following alternatives:

— a product adapted totally to its needs, which would place the component manufacturer in the position of a virtual sub-contractor, but with a high perceived risk of an out-of-stock position;
— a more standardized product, which means that the finished product was less distinct from its competitors, but supplies guaranteed owing to a multiple source strategy.

The Italian client evidently preferred the second alternative. It is not surprising therefore that the Export Director at Sud Composants withdrew from the relationship as soon as the client had accepted the product, leaving follow-up to the salesmen employed by the sales subsidiary.

The number of staff involved in the relationship, and the frequency of contacts, are lower than in the German example. In actual fact, the relationship is reduced to the initial contact, made by the subsidiary-employed salesman and the Export Director, then the checking of specifications by technicians from Sud Composants and the client's product evaluation group, and finally, sporadic contacts between technicians.

Sud Composants therefore developed a pre-sold product, in that the data they had available to them before contacting the client replaced to a major extent the complex system of interaction that was built up with the German client. However, it may be pointed out that it was Sud Composants who worked out the definite specifications for the product, thus achieving technical leadership. All the same, they did not succeed in becoming their customer's exclusive supplier.

This example shows that independently-gathered information may in some cases replace certain habitual stages of the interaction process; what happened in this instance was that Sud Composants possessed sufficient information on the market situation to decide to create a new product `in abstracto'.

In that matter it should be pointed out that Sud Composants produces components which are closely related to the finished product; it is therefore essential for them to keep a close eye on developments in the end market. Information on this subject often has a crucial influence on decision-making. This is why systematic visit reports submitted by technicians and sales personnel provide a complementary form of market information inputs.

RELATIONSHIP WITH THE SWEDISH CUSTOMER

Borg is a manufacturer of small industrial capital goods and accessories. They are strongly export-orientated and mass-produce goods for sale all over the world. Sud Composants describe them as being go-ahead, open-minded, and capable

of greatly increasing their sales turnover; however, they were also said to be difficult to influence because they closely adhered to their established system of doing business. The Export Director described the Swedes as `civil servants who never lose their tempers'.

This client was thought by Sud Composants to be of special interest as a target customer, as it was the world leader in its particular market sector.

Sud Composants supply this customer with an essential component. It accounts for nearly 50 per cent of the finished product's total production costs and Sud are its exclusive supplier.

Contact was first established when the sales subsidiary was set up in Sweden. The client used to manufacture a product using two types of component in order to cope with a difference in standards. One standard was applicable in Europe and in most other industrialized countries, whereas a different standard was in force in the USA and Canada. Initially, therefore, the client merely requested a price quotation for the two components. Sud Composants responded with the proposal that they should manufacture a single product that would conform to both standards simultaneously, which was a considerable technical achievement. The problem can be schematically represented in Exhibit 1.

The customer gained on the following counts:

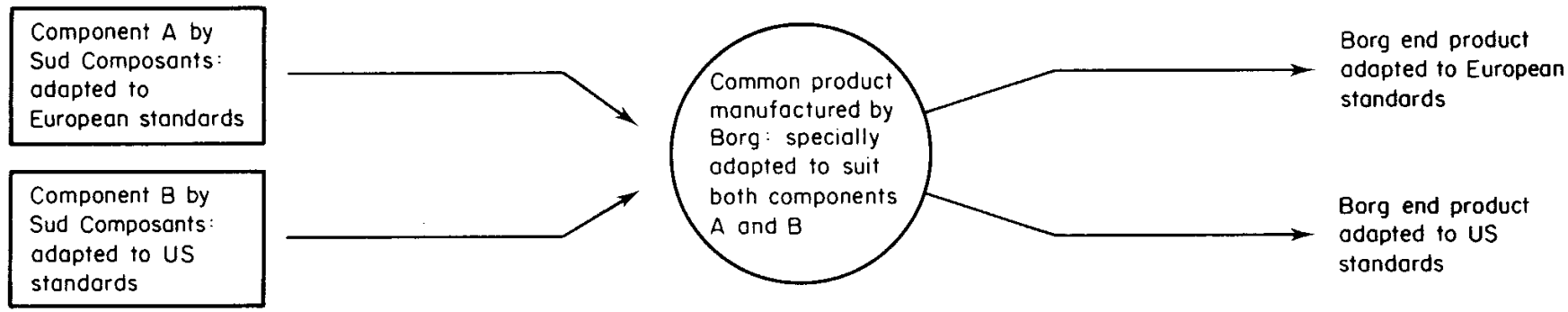
- one single point of reference for supplies of this component (e.g. Sud Composants), hence fewer problems of co-ordinating supply and after-sales service;
- reduced cost of assembly through standardization;

A highly-developed interaction process was set up in this instance. The client was obliged to duplicate its product range, its machinery, its stocks in North America, etc. for both end products. Sud Composants were faced with the task of carrying off a technical exploit of considerable magnitude. The contact patterns during this period were very complex and involved the top management of both firms, both design offices, both R and D departments, etc. Numerous exchanges and visits took place, then the subsidiary very quickly took over the contacts entirely.

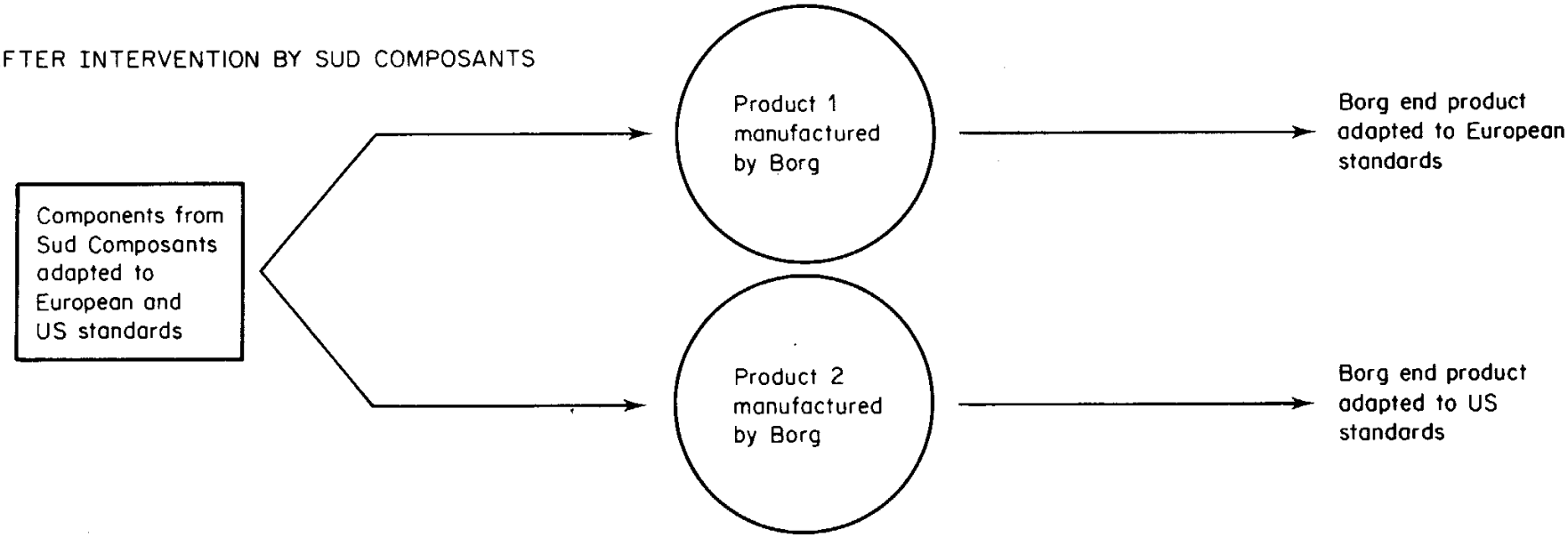
Some time after the new processes had been set up, a few after-sales problems arose on the American market. As Sud Composants possess a relatively broad infrastructure, they agreed to find a solution.

This undertaking gave satisfactory results, and the Swedish customer then asked Sud Composants to take direct control of after-sales service on the American market. Here again, results were satisfactory, and the client ended up asking Sud Composants to take entire charge of the assembly of the finished product on the American market. At this stage, the Group Director, who alone had authority over the subsidiary, had to intervene; and it was only after complex negotiations had taken place involving the Group Director, the Production Director, the Export Director, the Director of the subsidiary, and the after-sales department, that an agreement was finally reached and the client's management, backed up by their own after-sales department, secured Sud Composants agreement with their request.

BEFORE INTERVENTION BY SUD COMPOSANTS



AFTER INTERVENTION BY SUD COMPOSANTS



Sud Composants management now consider that their client is in a situation of great dependence. Not only do Sud Composants have a considerable technological lead, but the client is also tied to them by the agreement on the American market.

RELATIONSHIP WITH THE FRENCH CUSTOMER The

French example serves to illustrate two interesting aspects:

(i) it underlines the influence that personal contacts may have in certain cases
(ii) it also illustrates a situation in which the power balance between customer and supplier is greatly to the client's disadvantage, and underlined still further by technical superiority of the supplier.

The French client, Beaume, is a small family firm, who have been dealing with Sud Composants for many years.

Sud Composants supply them with a complex component which accounts for 80 per cent of the value of the finished product. Its essential quality is reliability. The product was developed jointly, and Sud Composants is the only supplier.

The relationship was entirely dominated by contacts between the client's Managing Director and Sud's Director of New Products Department (NPD). Throughout the development stage, telephone contact was made at least once a day. The customer was visited once a fortnight and the latter visited Sud Composants once every six weeks. The two persons mentioned above were often assisted by two engineers from the client's design office, one member of Sud Composants' design office, and occasionally by a member of the after-sales service department at Sud Composants.

Perfecting the product was no easy task. The NPD had decided to commence testing using standard products that had been modified slightly. However, when the tests (conducted by the client) got under way, all the essential components broke, in complete contradiction with the calculations of both design offices. This led to a series of modifications (machine-finishing) which were so numerous and costly that once the product had finally been perfected, the Sud Composants design office redesigned it completely to simplify it and reduce production costs; even the foundry parts were redesigned.

It is obvious that the fact that the two firms were on excellent terms had a lot to do with Sud Composants' behaviour in this affair. Even so, a major aspect of the latter's strategy can be seen in the fact that none of the trial prototypes were invoiced to the customer; this was not so much due to a desire for correctness in their business dealings, but rather because Sud Composants were determined to remain the owners of this model!

The customer, in fact, tried to bargain on this point, but was only able to obtain exclusiveness on the French market for this application. Sud Composants are now in the process of developing new applications for their product, whilst remaining the exclusive supplier to Beaume.

This example as a whole illustrates again one important feature of Sud Composants' strategy towards its clients. First of all, the company obtained the position of exclusive supplier owing to their very strong technical superiority; next, they blocked much of the client's chances of selling abroad. It was as if Sud Composants looked on their customer as a sub-contractor in charge of commercializing a product, and considered that their component made up an essential part of the value of the finished product.

CONCLUSIONS

The strategy used by Sud Composants appears to be clearly orientated towards interstitial markets, involving finding special niches or gaps in the market. This necessitates the making of technical or technological adjustments which vary in scope, but are rarely straightforward.

Sud Composants' strength lies precisely in their highly developed ability to adapt, which is a decisive factor affecting supplier choice as far as the client is concerned. The alternative is to choose one of Sud Composants' much larger competitors, who are less flexible, mainly because they stock very large product ranges.

Sud Composants' range, on the other hand, is very compact and therefore less cumbersome, and is made up of basic products that can be adapted easily and economically. This enables Sud Composants to react to customers' requests for new products very rapidly, and often at little extra cost. It must be pointed out, however, that Sud Composants only agree to make the necessary adjustments for growth markets, which of course is the best possible attitude to have when dealing with a virtually unlimited total market. This policy all but eliminates cases where adjustment cost would be prohibitive, i.e. too high when set against the corresponding volume of sales and the profit margin achieved.

This strategy is served by a strong and effective marketing and commercial organization giving extensive market coverage. Even so, unlike certain other examples identified, Sud Composants' sales subsidiaries do not screen the manufacturer from its customers, even though they are responsible for the distribution of all the Group's products. The role of the subsidiary's salesmen is to make preliminary contact with clients, and to find new markets, then, when things are running smoothly, to make regular follow-up contact.

The essential aspects of negotiations are, however, conducted by the management concerned at Sud Composants, who are highly mobile and are authorized to make decisions during visits to the customer. This tactic enables them to meet their opposite numbers on the same footing, and thus to undertake high-level negotiations. This manner of proceeding is a good reflection of the respective positions held by the subsidiary and the head office, the latter retaining the essential decision-making function without slowing down the negotiation process.

It was also observed that Sud Composants management were quite willing to conduct research on the end market; this attitude frequently enabled them to act as consultants to their clients, and thereby steal a march on their competitors. Sud Composants' knowledge of their clients' market made it possible for them to place

themselves in a strong position *vis-a-vis* the client before going through the usual product–price–service negotiations. Then they were able to turn the negotiations to suit their own objectives. This policy meant that they brought a more complete solution to the client's problem than suppliers normally tended to do.

It has been pointed out that Sud Composants have applied a strategy aimed at gaining control of interstitial or special gaps in markets, which may be represented as follows:

- Approach a customer identified as being one of the most go-ahead firms in each market selected;
- work out standards for specific adjustment to the chosen gap or interstice;
- direct a major sales effort at other potential customers, as in the German example, because the client studied now only accounts for 15 per cent of sales of this product to Germany.

A strategy of this kind presents other interesting results: whereas it has been shown that interaction processes as complex as those studied sometimes tended to make the client and supplier reciprocally dependent, Sud Composants succeeded in rendering their client captive or virtually so, whilst retaining considerable freedom themselves. The French customer Beaume is a good illustration of this.

Finally, one may say in conclusion that Sud Composants' success is largely due to its ability to interact with customers in all possible ways. There is no set type of negotiation, but close interaction is always used when dealing with target customers, and this enables Sud Composants to attain a privileged position with regard to competitors, owing to their prior analysis of the customer's situation. By working in close interaction, Sud Composants are able to satisfy the client's total needs, and not merely his technical or financial needs.

AUTOSTART

Malcolm T. Cunningham

An analysis of the relationships and personal contact patterns between a UK component supplier and various European customers in the commercial vehicle industry.

INTRODUCTION

The case illustrates the relevance of the interaction model of industrial marketing to an understanding of the inter-organizational relationships between a supplier and its customers in export markets. These supplier–customer relationships are in different stages of development in five European countries. The products being marketed are high technology components and the complexity of these components, together with the highly concentrated structure of the industry, are shown to predetermine the need for the supplier to interact extensively with

customers. There is evidence of a strong economic and technological dependence between customers and suppliers. The cultural barriers, market potential and age of the relationship with customers in each country are shown to affect the resources allocated to the establishment and maintenance of interpersonal contacts with various customers.

The case study is structured in the following manner: First of all, the characteristics of the supplier company are identified in terms of its size, technology, organization structure, and marketing strategy. Then the market environment is presented to illustrate how changing demand, together with high market concentration and strong European competition affect the need for the company to interact effectively with customers to market its technological expertise. Finally, an analysis is undertaken of the processes and elements of interaction between the supplier's two product divisions and five customers. Particular emphasis is given to the different patterns of personal contact between staff in supplier and customer organizations.

CHARACTERISTICS OF THE SUPPLIER COMPANY — AUTOSTART LTD.

Size

The Company is part of a large UK-based international engineering group. It manufactures on a number of factory sites in the UK and also produces abroad in several countries.

The UK Company has two profit autonomous divisions oriented towards the vehicle industry, supplying components to customers who manufacture cars, commercial vehicles, tractors, etc. The size of each product division can be judged from the following data:

	Product Group No. 1 (Vacparts)	Product Group No. 2 (Starsets)
Exports as percentage of sales	12%	18%
Sales to France	£0.105m	£0.18m
Germany	£0.105m	£0.065m
Italy	£3.85m	£0.420m
Sweden	£0.98m	£0.406m
UK	£45m	£10m

Organization Structure

The Company has central research, finance, customer service, and market research functions but each product division employs its own engineering design, manufacturing, delivery supplies, and marketing functions. The marketing activities of each product division are within the responsibility of separate marketing managers.

The Company's export sales organization consists of a Group sales office and

service facility in each of the other four European countries, with each product division employing its own export salesmen. Initially, the overseas marketing organizations of both divisions were fully integrated and relied entirely upon group overseas sales offices' staff. Subsequently, the two divisions were set up as autonomous units and each has adopted a slightly different form of sales representation in Europe.

The larger production Division (1) (hereafter code named Vacparts) has progressively established sales representatives located in the export territory: first in Sweden then Italy and finally Germany and France. The staff appointed were initially UK nationals speaking the local language who were then replaced by local nationals controlled by UK based marketing staff and supported by UK based engineers. Product Division (2) (hereafter code named Starsets) does not employ any salesmen located overseas but handles European exports through UK-based export salesmen.

In overseas markets, someone from the Group sales office will accompany export salesmen from Starsets but rarely will be called in to assist the local salesmen of Vacparts. The Group sales office staff keep in contact with major vehicle manufacturers in Europe. Group Service facilities handle after-sales business on all spare parts and service queries.

Product Technology and End-Use Applications

The larger division, Vacparts, manufactures products of high complexity consisting of a large number of precision components of high unit value. Their performance on the customer's product is of critical importance. Joint product development and prolonged periods of testing in the supplier factory, and on the customer's product, are required to gain customers acceptance. Extensive technical advice to customers is necessary before, during and after sales and a comprehensive after-sales service and spare parts support facility is required.

The smaller division, Starsets, manufacture sub-assemblies, consisting of components of medium technical complexity. Their unit value is high and they are used in conjunction with, though not incorporated into, products from Vacparts division. The performance of the products is important to the customer's product and, although extensive testing and after-sales service is required, they are not of such crucial essentiality as Vacparts' products.

The Strategic Approach to Export Markets

During the past five years the Autostart Company has given increasing attention to export opportunities for both its divisions. Home market sales are vulnerable, due to the loss of their own market shares by many UK customers and the dual sourcing policies for component supplies which they currently implement.

Western Europe has attractive market potential and, by penetrating the French, German, Italian, and Swedish commercial vehicle markets and securing a market share of say 20 per cent, this would double company sales.

The approach to Europe is to gain business from a few selected customers in

each country. Current UK customers, who establish overseas manufacturing operations, will be encouraged to source from Autostart UK or from a subsidiary in one of the European countries.

Europe is treated as one major market with a common approach adopted. The selection of a few key customers is crucial because of the high resource costs of developing products, and gaining acceptance as a supplier through trial and testing. The supplier considers that personal contacts with customers are vital and good relations must be developed.

The marketing approach to customers is to influence the potential customer and also by getting the vehicle user to specify his equipment to the vehicle manufacturer. The company recognizes that it is important to communicate to customers its technical skills as well as its capacity in manufacturing facilities. The supplier attempts to become approved and so get a small share of the customer's orders as a second source of supply by offering interchangeability with the first supplier's product. Alternatively, the supplier attempts to be included as a possible supplier on a new design and testing programme by the customer.

THE ENVIRONMENT

From all the environmental variables influencing the establishment and maintenance of relationships with customers we focus upon the market factors affecting the need to interact with customers and the barriers to exporting. Three groups of factors are examined: growing demand, the economic importance of a few customers in a concentrated market and the need to match competitors' activities.

Growing Demand

Internationally, the demand for the products made by Autostart is increasing at 5—10 per cent per annum. The home market is currently depressed, in line with the recession in western economies. Over the same period, vehicle imports into the UK have trebled and the supplier is faced with a challenge to his dominant UK market share. Commercial vehicle production in the UK is now 20 per cent less than it was five-six years earlier.

Customer Characteristics

The commercial vehicle industry is an internationally orientated one where customers are either multinationals, with ownership ties with the USA, or large international export orientated European manufacturers. There are usually between two and four major customers in each European market. Most large customers operate on approved suppliers list which usually means that, once a supplier and his product have been approved by the group, he can sell to any subsidiary or divisional factory. Customers give considerable freedom to their divisions in sourcing decisions to buy from suppliers on the approved list. Hence the

supplier has to constantly resell his product and his total company capability to the various decentralized units within a large customer group.

Competition

There are only five-six significant competitors in Europe for both divisions. In some instances, these competitors are the same companies who make both types of products, and in other cases, they are competitors who specialize in one of the product ranges. Competitors are almost exclusively European and, in any of the European countries, the Autostart Company faces a German competitor, (exporting directly or through one of its subsidiaries) and a domestic component manufacturer.

The principal means by which the two divisions attempt to differentiate themselves from European competitors is through product innovation, high technical competence, and after-sales service. Both divisions rarely compete through lower prices, yet their reputation for poor delivery reliability and slow response in providing samples for customers evaluation, places them at a disadvantage in these aspects. The divisions are able to match competition on the breadth of product range, delivery capacity, stock holding facilities, and quality assurance.

INTERACTION PROCESSES WITH CUSTOMERS

The major areas in which interaction takes place between the supplier company divisions and the various customers is in the exchange of information, the adaptations which each participating company makes in trading with the other, and in the personal contact patterns between staff in the two organizations, leading up to and during the supply of products and services.

Information Exchange Between Supplier and Various Customers

There is a great deal of technical information exchanged in both directions between each division and its customers. All major customers provide the supplier with technical data on future application and new product developments.

The supplier encourages technical, buying and production staff of all large customers to visit his factory to see for themselves what is available and to establish face-to-face contacts with supplier's personnel. The supplier singles out major customers to provide them with information about new product developments which are well advanced and shortly to be made available on the market.

Adaptations Between Customer and Suppliers

Product adaptations are of a moderate nature. Foreign customers make minor adaptations to their own products to accommodate the assembly of the UK supplier's components or to meet his special operating requirements. Vacparts

engages in joint product development work with most of its major customers. Starsets responds to initiatives and new ideas for product improvement from customers. Many products are developed for special customers but then standardised and sold to other customers.

Stockholding adaptations are very extensive in foreign markets. The major adaptations have been made by the supplier's divisions but still have necessitated substantial adaptations from customers buying from a UK source instead of, or in addition to, a home based national supplier.

Vacparts division, have been obliged to carry one month's safety stock for each of the French and Swedish customers, due to the risk of labour disputes in the UK disrupting supplies. Starsets do not carry separate stocks for each customer and have not been asked to, but aim to keep one month's stock of all major components at the factory.

Adaptations in manufacturing and scheduling of supplies are very limited. It is in the quality control and testing stage that the customers have had to make the greatest adaptations.

Financial adaptations have been made by customers and the two supply divisions. These relate to credit terms, advanced warning of price increases and price concessions. Starsets find that they make frequent price concessions to potentially large customers in order to get the orders on a new vehicle model.

CONTACT PATTERNS BETWEEN SUPPLIER AND CUSTOMER ORGANIZATIONS

Close personal contacts are extremely important but their intensity and the functional groups involved varies at each successive stage of the relationship. These stages can be summarized as — product development, specification of product and its application, prototype supply and testing, delivery co-ordination, quality assurance, after-sales service, and spares provision. These stages and their appropriate personal contacts can be recognized both in the gaining of initial business and in the periodic negotiation with existing customers for new contracts.

The following table summarizes the extent and frequency of personal contacts between staff in each of the two product divisions with their counterparts in the customer companies. The common characteristic of these relationships is that they involve design, quality control, and buying staff in the customer firm with design, quality control, and selling staff from the supplier. The level in the organization at which these personal contacts are made varies from one situation to another, as does also the number of supportive functions in the buyer and seller firms who interact.

In order to facilitate a more penetrating analysis of the variation between the contact patterns with different customers, some specific relationships can be examined in more detail.

The French customer relationship For the Vacparts division, the relatively small number of contacts with the French customer is the exceptional one. This relationship with a very large commercial vehicle manufacturer is in an early stage

Table 1 Personal contact patterns between supplier divisions and various customers

Breadth and frequency of contacts between companies	Customer of Vacparts division			Customer of Starsets division			
	France	Sweden	UK	Germany	Italy	Sweden	UK
Number of people involved from supplier	7	11	30	2	6	6	10
Number of people involved from customer	9	11	15	8	20	20	40
Number of meetings per annum at supplier company	2	1	12	1	1	4	2
Number of meetings per annum at customer company	14	50	150	2	12	4	40

of development. Personal contacts are at a low level in the organization both of the supplier and of the customer. The export salesman is not very experienced with that customer nor with the language and customs in France. The sales potential with this customer is very high and the current share of his business is only 1 per cent. The business relationship is in the TRIAL stage after four years during which the customer evaluates, in a very critical manner, the capabilities of the supplier and of his product offering.

The German customer relationship For the Starsets division it is the German customer who is treated differently from others. Although the business relationship is of only four years' duration, it is already a stable one. The supplier has secured 100 per cent of the customer's orders. The customer is a very small company but contacts are at the very highest level with executives in this German family business. There is little scope for expansion, and senior management in the supplier do not become personally involved with the small customer, where the volume of business is comparatively small and his needs are specialized.

The UK customer relationship At the other extreme, the extensiveness of interpersonal contacts with the UK customers of both divisions is explained by the critical importance of the customers, their high volume of orders, and the length of the relationship. Business has been conducted for over 30 years and the contact patterns have been institutionalized. Senior management in supplier and customer companies interact socially and in business. There is extensive two way interchange of technical and commercial information and contacts cover large numbers of staff in engineering, research, production, delivery supplies, quality control as well as marketing and buying functions. There is effective matching and adaptation of the systems and procedures both of supplier and customer.

The Italian and Swedish customer relationships Certain interesting features emerge in examining the apparently similar contact pattern of the Starsets division

with its Italian and Swedish customers. Both relationships have existed for 12 years, the volume of business is substantial and yet the potential is much greater in Italy than in Sweden. It is in the style of contacts and the nature of the relationship that differences occur, which are more attributable to cultural than economic factors. The Italian customer is seen as very autocratic and impersonal in comparison with the friendly rapport with the Swedish customer. Contacts with the Italian customer usually occur through formally structured meetings involving 10 to 15 commercial and technical people of the customer company; the language and business culture imposes a barrier to informal meetings with individuals. In Sweden, however, although the same number of customer staff may be contacted, this is done in a more informal manner with no apparent problems of communication since English is the accepted language on such occasions.

Table 2 summarizes various factors which appear to affect the resources committed to each customer relationship.

The greater technical complexity and rate of innovation of the Vacparts products, as compared with the Starsets products, accounts for the higher frequency of contacts with Vacparts' customers. This also requires the greater involvement of engineering staff from research, development, design and applications functions both from customers and suppliers.

The Purpose of Personal Contacts

One of the roles of personal contacts, e.g. that which involves resolving crises, can be illustrated from the following relationships:

The sales representative of Vacparts in France has a primary role of customer liaison and market intelligence. As a Frenchman, he has access to a lot of market information and potential sources of friction between supplier and customer. The UK export salesman, who supervises the representative, makes less frequent, but higher level visits, than the representative. The narrow pattern of contacts between technical staff in both companies has led to several minor crises such as mis-interpretation of customer needs, non-compliance with specifications, and in-correct implementation of test requirements. The absence of substantial contacts at senior management level is explained by the low volume of business being done currently. The lack of personal contacts between production staff in the two companies may account for the supplier's slow response to customers' requests. It appears that these crises, or episodes in the relationship, have neither been anticipated nor satisfactorily resolved due, in part, to the deficiencies in the management of the relationship by extensive, multi-functional and multi-hierarchical levels of personal contacts.

By way of contrast, the sales representative of Vacparts in Swede maintains close contact on a weekly basis with customers' staff in all functions, but at a low level. The UK based export manager, who speaks Swedish fluently, visits the customer four times per annum in the presence of the local representative. Contacts are at a higher level, with priority given to top purchasing and technical

Table 2 Factors influencing resources allocated to customer relationships

Aspect of the customer relationship	Customers of Vacparts division			Customers of Starsets division			
	France	Sweden	UK	Germany	Italy	Sweden	UK
Stage of development	Trial	Stable	Stable	Stable	Growth	Stable	Stable
Age of relationship in years	4	12	30	4	10/12	12	30
Nature of relationship	Formal Friendly	Friendly	Co-operative Friendly	Formal Friendly	Formal	Friendly	Friendly Crises-ridden
Size of customer	V. large	Medium	V. large	V. small	V. large	Large	V. large
Current share of customer's business	1%	80%	90%	100%	10%	100%	65%
Future potential for sales growth	V. high	Small	High	Nil	High	Nil	Declining
Language and cultural barriers	V. strong	None	None	Strong	V. strong	None	None

Two crises have arisen with this Swedish customer. In the first instance, prices had dropped too low due to German competition and, in the second instance, an industrial dispute at the supplier's factory disrupted supplies. Both crises were resolved by extensive and delicate negotiations, first of all at the contact levels of the local representative and then of the export manager. Thereafter, when the ground was prepared, the final negotiations were conducted at top management level in both companies, but in the presence of their subordinate staffs. Use was made of the extensive contact patterns, already built up in a time of harmonious business, to solve a problem at a time of crisis.

CONCLUSIONS

First of all, the case study highlights the dynamism of the international auto-motive component market and how the technical and economic inter-dependence between component supplier and commercial vehicle customers varies because of changes in market structure, demand, and competitive activities. These changes in the `environment' of a relationship result in actions by suppliers and customers to alter their dependence on the other party. The exercise of bargaining power is thus in evidence by obtaining alternative sources of supply or seeking new customers. In this way the `atmosphere' of existing relationships is affected.

Second, an examination of the personal contacts in the interaction process demonstrates that the intensity of supplier-customer contacts, involving different company functional departments and hierarchical levels is seen to evolve over different stages of the relationship.

Third, there are interesting resource allocation issues identified in the case when managing several customer relationships which are at different stages and in countries with varying market potential. Such marketing resources are strongly influenced by the technical complexity of the product and the compatibility which can be achieved between the supplier's and customer's ways of doing business.

Examining These Issues in More Detail

The technological interdependence between Autostart and its customers is due to the relatively high technology of these engine components marketed to the commercial vehicle market. Customers view Autostart's product as being an essential and vital means by which the performance of their own products is enhanced. Similarly, Autostart is technically dependent on these major international customers to maintain its product application expertise. However, in such a concentrated market, in which there are only two internationally strong suppliers and a small number of national suppliers of these components, European customers are progressively developing dual sourcing policies, which changes their complete economic dependence on only one supplier. The small national suppliers have become economically overdependent upon their own national customers, whereas Autostart has taken steps to reduce its excessive dependence on its main UK customer. In the past, both the Autostart divisions have been heavily dependent for their sales upon the UK market and particularly on those UK customers

identified in this study. The down turn in the home market and the progressive imports of foreign vehicles into the UK have forced Autostart to look for new markets in Europe. This is intended to reduce their dependence on these UK markets and also to protect their home market spares sales by having their products fitted on vehicles imported into the UK.

The technological characteristics of the product and its application determines the extent of interaction. The elements of competition which Autostart emphasizes are product innovation, technical competence and service; these strengths can only be effectively communicated to customers through a network of intercompany relationships involving technical, marketing and service staff with their counterparts in the customer companies. Such extensive personal contacts have to be established as a prerequisite of being accepted as a supplier. These take place in the preliminary stages of obtaining customer approval for the product and the carrying out of tests on prototype and trial orders.

The case study deals with relationships with customers which vary from four years in France and Germany, to 12 years in Italy and Sweden to 30 years in the UK. The amount of interpersonal contacts appears to depend upon the age, or certainly the stage, of the relationship. The exact nature of the relationship is determined by certain cultural characteristics of the customer country and by the importance of the business both to customer and supplier. The relationship with the French firm is of a formal, sceptical nature and is at the trial stage where the supplier has not yet been fully accepted. The relationship with the Italian customer is stable and friendly, based on co-operation, in spite of the language barrier channelling contacts into formal meetings. The relationships in Sweden and the UK are long lasting, friendly, and capable of overcoming crises.

Such relationships with customers take a long time to develop to the situation where a customer is willing to transfer substantial business to an overseas supplier from a well established national one. Autostart's marketing strategy consists of securing business from selected customers in each European country. The resources which strongly entrenched competitors devote to maintaining their customer relationships constitutes a barrier to entry for Autostart.

However, relationships and sales orders can be built up incrementally. Yet, to be considered as a viable alternative supplier, Autostart must be prepared to commit a minimum level of resources for information exchange, adaptations, and inter-organizational personal contact with its customers.

There is little to distinguish between the information exhanged with each customer in the five countries. The major differences which occur are largely accounted for by the greater technical complexity and innovativeness of the Vacparts products than the Starsets products. The former division more commonly engage in joint product development with customers and take the initiative in design and development to meet and anticipate customers' needs. This results in a more balanced exchange of information between suppliers and customers than applies to Starsets division, who tend to respond to customers' specifications.

The organizational level and breadth of coverage of personal contacts between staff in the supplier and customer companies varies considerably between customers in different countries. The intensity of such contacts changes as the

relationship progresses through successive stages. Contacts also increase as emergencies arise or new opportunities occur for business with a customer. Provided that the amount of business from a customer is substantial or continues to grow, then the volume and frequency of interpersonal contacts increases with the age of the relationship.

Problems with foreign language and incompatibility of business cultures between a supplier and a customer affect the style and degree of formalization of the interaction process. This is shown in the dealings with the Italian and French customers.

Good personal relationships operating through an extensive network of inter-organizational contacts are of vital necessity in resolving crises which occur with customers. This is a feature of the relationship with one of the Swedish customers, but its absence with the French customer is likely to lead to continuing problems.

The allocation of resources to customer relationships is summarized in Tables 1 and 2. However, the contacts between the supplier and various customers are a crude measure of the total marketing resources allocated to each relationship. These resource allocations cannot be adequately explained by the stage of the relationship but rather by the duration of the relationship. For example, there is evidence from the UK customer relationship that these long lasting interactions have become institutionalized and the network of extensive contacts between individuals and functional groups in both companies become accepted as the normal way of operating. Procedures and meetings are rarely questioned. Large resources are committed to the maintenance of a relationship in which high volumes of goods are exchanged. Neither party could withdraw easily from the relationship in view of the heavy investment in material and human resources already made.

By contrast, the contact pattern with the French customer is very small considering the huge potential with this customer and the critical necessity of meeting this French customer's requirements.

From this it appears that the supplier allocates resources to customer relationships according to the amount of current business or that which was achieved in the past, rather than to where potential business is available. Excessive resources appear to be allocated to UK customers and inadequate resources to the French and Italian customers whose business prospects are excellent with very large and internationally reputable customers.

FRANCELEC

Michel Perrin and *Jean-Paul Valla*

INTRODUCTION

This case deals with relationships between Francelec, a component: manufacturer, and its customers on the French, German, and Swedish markets. It is very typical of situations where:

- The product itself is highly technical and very important for the buyer in terms of its impact on the product that the buying company manufactures and on its production process.
- The number of potential customers is relatively small (around 300 in the entire world according to our interviewees) and they are all rather large companies.
- The number of competitors is also limited.

This case also clearly shows how Francelec develops its penetration of foreign markets through adapting its organizational strategy according to the evolution of its marketing perspective.

THE FIRM

The firm belongs to a highly diversified holding company consisting of several autonomous French companies. Francelec has a very high growth rate; turnover having quadrupled between 1971 and 1976. The electrical components which the company manufactures can be classified into four main product groups. The two main product groups, 1 and 2, account for over 80 per cent of turnover, group 1 products alone accounting for 70 per cent of turnover.

Francelec is highly export-minded, and over half of its turnover is achieved on foreign markets. Export figures for the sample countries are given in Table 1.

The majority of customers are manufacturers of heavy domestic appliances (dish-washers, washing-machines, etc.) and of small household appliances. These customers are few in number and they are all large companies.

Globally, Francelec sells to foreign markets using two methods:

- Sales subsidiaries (usually jointly owned firms)
- Direct, through its own sales force.

On these foreign markets, salesmen from the subsidiaries are required to perform two main tasks: First to make numerous contacts with potential clients; second to make sure that deliveries arrive on time, and that quantity and quality are according to specifications.

After an initial period of a few months, during which time the early stages of the relationship are handled by the salesman, the French company takes over, and a French based team deals direct with the customer.

In all countries, salesmen from the subsidiaries are paid on the basis of a fixed salary, except in Italy where they are paid on commission, in order to accelerate market penetration in that country.

Table 1 Proportion of sales to the five European countries

Market	France	W. Germany	Italy	Sweden	UK
% total[a] turnover	50%	20%	1.5%	4%	5.5%

[a]Product Groups 1 and 2 only.

Internal organization at Francelec is based on functional divisions. The three main functions are the commercial, research, and development, and technical functions. The commercial division encompasses a marketing department, a quality control department and an export department. After-sales service and assistance are provided by the technical division. All commercial staff possess a solid technical background.

The system of export organization was developed over a long period. Initially, Francelec distributed standard products abroad via independent agents, but as sales regularly increased and tailor-made products started to be sold, this system became inadequate. Francelec then decided to gain control of its foreign sales organizations either by the establishment of joint ventures or by the creation of its own sales force.

Francelec's marketing policy is based on two priorities:

— To meet delivery requirements
— To give as much assistance as is needed to maintain and develop a co-operative relationship.

Prices are considered to be of little relative importance. High quality and advanced technology are considered a prerequisite; they are the first and primary condition for staying in the market. Francelec's prices are, in fact, among the highest on the market. Nevertheless, the company is able to maintain its position as market leader.

As far as describing the relationships between Francelec and its customers is concerned (e.g. French company Honore, German company Germanop, and Swedish company Swedop) the nationality of the various customers does not seem to be a valid criterion for differentiation between the three different relationships. Instead, physical distance, Francelec's organization in the country, and the purchasing strategy of the customer seem to be better explanatory criteria.

This being so, we could look at Francelec's strategy as aiming at reducing perceived physical distance, adapting to the customer's organization, and trying to influence its purchasing strategy by stressing supplier reputation, experience, and an image of reliability and flexibility, thus reducing perceived risks.

RELATIONSHIP WITH THE FRENCH CUSTOMER HONORE

The French Market

The French market accounts for 50 per cent of Francelec's turnover. This market, according to the interviewees, is expected to expand, and steady growth will continue for five years to come. This prospect can be explained by the low equipment rate of French households, which still leaves room for subsequent development, and also because manufacturers of heavy domestic appliances expect large increases in the sales of dish-washers and washing-machines, products which are still in the development phase of their life-cycle.

Francelec has a portfolio of 50 French customers with which they deal directly. A number of these are part of large French multinational groups or subsidiaries of foreign multinationals. The three largest customers account for 80 per cent of the turnover for group 1 products.

On the French market, Francelec has three major competitors: one French and two foreign. With a 65 per cent market share, Francelec is by far the leading supplier on the French market; the second major competitor (also French) accounts for 25 per cent of the market.

Francelec's competitive advantage is said to be due to their superior technology, closer contacts and co-operation, combined with relatively greater human resources than their competitors.

The French Customer — Honore

The French customer which was the subject of our interview is part of a large French multinational group. Francelec sells one particular group 1 product to Honore, which mainly manufactures dish-washers and washing-machines for which it has a strongly established position on the French market. The product bought by the firm Honore is essentially based on a standardized product.

Characteristics of the Relationship

Contacts with this particular client started in 1968. Since then, turnover has increased steadily. Honore accounts for 15 per cent of Francelec's French turn-over for this type of product. Francelec supplies 90 per cent of Honore's needs, the remaining 10 per cent being accounted for by various other suppliers. This proportion has remained constant for the past two or three years.

So far, Honore has kept various other suppliers in order to be able to exert some pressure on Francelec during negotiations.

Risk and the relationship Our hypothesis is that this situation can be explained on one hand through the high degree of risk involved in this type of transaction and on the other hand through the high cost of changing supplier. As far as risk is concerned, Honore, for instance, is very strict on delivery terms and Francelec has to comply with a delivery schedule which requires two deliveries per week. Since Francelec has always been very reliable in these matters, Honore has not felt the need to change supplier. However, Honore felt it necessary to establish relationships with other suppliers in order to be protected in case Francelec failed to match Honore's requirements.

Quality has also been a predominant concern in the relationship as far as Honore is concerned. In order to ensure consistent quality, Honore has established a special quality control procedure to check products before they are put on the assembly line, to ensure that inadequate products would not go through. A contract between Honore and Francelec stipulates that special penalties would be imposed on the latter if products were not according to specification. So far, this contract clause has never had to be used.

As well as the product itself, Francelec offers extra services which include technical advice, pre-sales service and personnel training. It should be mentioned that the latter is reciprocal.

Co-operation Permanent in-depth co-operation takes place between Francelec and Honore's R and D departments. This co-operation was established on the basis of a reciprocal tacit agreement to ensure product performance and quality as well as to achieve co-operation in new product development. On the whole, co-operation between the two companies is said to be quite good and each company has an excellent knowledge of the organization and procedures of the other.

The pressure occasionally exerted by Honore is considered as `normal' and `fair' by Francelec management.

Adaptations It is not easy to pinpoint adjustments in the relationship between the two firms because, in this instance, it tends to be more of a permanent, on-going process. For instance, R and D departments from both firms co-operate in new product development, a series of adjustments are, in fact, made by both companies during the discussions and confrontations about projects. More obvious adjustments were essentially made by Francelec, among which may be mentioned adjustments regarding delivery schedules and payment procedures.

Contact patterns Another factor, related in many ways to communication and co-operation possibilities, is said to play a very important part in the relationship between the two companies. This factor is proximity, which allows more flexibility in the relationship and fast decision-making and implementation.

An analysis of inter-company contact patterns tends to confirm what has been said above about the scope and depth of communication between the two companies. Reciprocal visits occur twice a month on each side, amounting, therefore, to a total of four contacts per month. Daily phone calls are the norm, as well as three communications by telex and two to three letters per week. On top of these contacts, members of the marketing departments of both companies meet once a month, and top management once a year.

A total of 10 people from Francelec are regularly involved in the relationship with Honore. The number of people involved at Honore is similar.

Evolution of the relationship and comparison with other relationships with French customers The relationship between Honore and Francelec can also be described as involving a high degree of trust, friendly person-to-person contacts, and easy access to decision-makers on both sides. It is true that no major difficulty has yet arisen between the two companies.

Since Honore has woken up to certain aspects of their dependence, however, Francelec's market share is likely to start declining. Other French customers have already reacted in a similar way: these were customers who got virtually 100 per

cent of their supplies from Francelec. Their change of mind may be partly accounted for by the strategy of competitors who have tended recently to make great play of the dangers involved in having only one source of supply.

The principal aspects of the relationship described above between Francelec and Honore may be considered representative of Francelec's dealings with their French customers as a whole. Close co-operation and good communication processes are essential, given the type of transactions involved, product features, and the client's technology.

Relationships are usually stable and are limited to a small number of suppliers. A supplier must go through a lengthy procedure of feasibility tests before he can be accepted as a possible supplier; a client's list of possible suppliers is, therefore, seldom modified and only occasionally is a new supplier added to it. However, the relative share of each of the actual suppliers (usually varying between two and four) in a particular customer's total purchase, in some instances, can vary quite considerably over a period of time. In several situations, when Francelec was affected by variations of this kind, its management admitted that it was impossible to discern the reasons for the actual change. It was assumed that this had some-thing to do with some kind of long-term purchasing strategy in some cases and, in others, with mere short-term financial advantage.

It should be mentioned that the latter can occur only if suppliers are equivalent on all other evaluation criteria, which is not often the case. When there are differences, price is said to play a minor part in the decision, and customers seldom look for short-term financial advantages.

Compared to relationships with other customers, the relationship between Francelec and Honore is said to be based on an unusually high level of trust. In many other cases, according to Francelec's management, secrecy plays a more important part in the relationship and it is more difficult to persuade the client to disclose information.

Other differences are due to the special characteristics of Honore's internal organization, among which may be mentioned the power, status, and competence of the purchasing department as well as the competence of the technical personnel; in this company, the purchasing department is rated low in status and competence and, therefore, plays a limited role in purchasing decisions. Its role is mostly administrative and it is not much of an obstacle to co-operation with other departments of the firm.

RELATIONSHIP BETWEEN FRANCELEC AND THE GERMAN AND SWEDISH CUSTOMERS

The relationship between Francelec and its German and Swedish customers is very similar to the relationship with Honore. Therefore, we shall only emphasize the important and specific features of both export relationships as far as the particular customers and markets are concerned. Additonally, we shall mention the distinctive features between the three relationships and suggest possible explanations for them.

The German Market

The German market was approached, for the first time, by Francelec in 1972. The German market according to Francelec management, is very similar to the French market in terms of growth and potential, in spite of a somewhat higher equipment rate in Germany.

Francelec has great expectations for its own future on the German market because of its low market share (10 per cent) and the fact that competition is identical to that which Francelec has to face in France and other European markets. From most points of view, the risk involved in dealing with German customers, as seen by Francelec management, is not perceived as being any higher than when dealing with French clients. Moreover, as regards one aspect, i.e. credit risk, Francelec trust German customers more than they do French customers.

In the medium term, Francelec's target is to gain an additional 5 per cent market share in Germany.

Francelec has a portfolio of ten customers in Germany and deals directly with seven of them. The other three are managed by a German firm which employs a representative for Francelec products. This representative performs the following tasks:

— Contacts with potential clients
— Information gathering
— Co-operation with the technical adaptations department at the French head office.
— Making sure that no problems arise when dealing with German customers.

For quotations and technical negotiations, a team of French staff is sent over to Germany. As in most countries, a special price discount is granted when a new customer accepts a trial order.

After a period of time, Francelec deals direct with the new customers and the salesman in Germany only performs the last of the tasks mentioned above.

The German Customer — Germanop

`Germanop' is a large German company specialized in the manufacturing of large domestic appliances. The firm is highly internationally oriented, and is Francelec's largest customer in Germany. Turnover achieved with this customer has been increasing regularly since 1972.

In 1976, Francelec supplied 50 per cent of Germanop's needs. One hundred per cent of these sales were made with a component of the same type as the one sold in France to the firm Honore.

The Swedish Market

Francelec appears to lack information about the Swedish market, and particularly

information on its customers' market and how this market is likely to develop. This might be explained by the type of distribution channel that Francelec used in Sweden until 1977. Up to the end of December, 1976, Francelec were, in fact, represented in Sweden through an exclusive independent agent.

In spite of the turnover and the market share achieved by this agent, its relationship with Francelec became problematical. The main reasons for this deterioration were due to lack of experience, problems that started to occur with some clients and remained unsolved, poor communications, and the fact that close supervision was impossible.

Francelec realized that this situation could damage its position on the Swedish market and hired a representative in January 1977 to play a similar role to that played by the company-employed representative in Germany. When our interview was conducted, it was as yet too early to evaluate the efficiency of the new solution. Nevertheless, identical situations on other markets had been solved in the same way and Francelec management appeared to be reasonably confident about the outcome of the new situation. Francelec management did not make any comment about their expectations on this market; the intention seemed to be that Francelec would use the next few months to set up `normal' relationships with its former customers and try to maintain its market share.

The Swedish market as a whole is seen by Francelec as an interesting, but limited market.

In Sweden, Francelec has ten big customers plus a hundred or so small ones, the small ones buying minor products (product groups 3 and 4). The three most important customers account for 85 per cent of turnover on the Swedish market. Francelec competes with only two other manufacturers, one of them being their French competitor.

The Swedish Customer – Swedop

`Swedop', another large firm, is active in several different fields, and belongs to a very large multinational group. This firm manufactures heavy domestic appliances, among other products. Francelec sells a component especially designed around `Swedop's' needs.

Swedop also buys another component product, but more than 90 per cent of its purchases are accounted for by the first type of product (product group 1). Francelec covers 100 per cent of Swedop's needs for this product, and Swedop's account for 40 per cent of Francelec's sales of this product group to Sweden.

COMPARISON OF THE THREE RELATIONSHIPS

The relationship with the German customer is very similar to that previously described between Francelec and Honore.

The quality of personal contacts, co-operation, and communications are particularly good. At the very beginning of the relationship, a team of German employees came to France where they had discussions with Francelec management, visited factories, and studied Francelec organization. Now ten people on

both sides are permanently involved in the exchange. Since the beginning of the relationship, no serious problems have arisen.

In spite of the many similarities, a few distinctive features can be observed between the two relationships. Germanop, for instance, has generally tended to look for more protection than Honore did in its relationship with Francelec. To give an example, a contract was signed between the two parties which stipulates that any product considered faulty would be immediately replaced at no cost.

Swedop, the Swedish customer, did not request that any particular adjustments be made by Francelec, apart from the adaptation of the product to its specific needs. On the contrary, Swedop is said to have had to adapt to a whole new technical language and reasoning when starting a relationship with Francelec. In fact, and in order to sell to Swedop, Francelec made little initial marketing effort.

The explanation of this is that Swedop was actually looking for a new supplier that could prove reliable after having suffered major problems with its current supplier. Francelec's international image and reputation was the main factor when this relationship initiated.

In all three situations, the principal needs of the customers are perceived to be identical by Francelec management and do not of themselves constitute a basis for using a different marketing mix or handling the relationship differently. The three customers are said to attach paramount importance to the respecting of delivery agreements, and to the quality of the products and the technical advice that accompanies it. In all three cases, price is said to be relatively of minor importance. Francelec's strategy was designed along these lines and has proved successful. Adaptations are reciprocal in two of the three cases, and the importance of the product purchased seems to motivate a need for close, broad-based co-operation which goes as far as co-operation in new product development.

Our analysis of the three situations also throws light on some original features of buying policies, as can be observed by comparison of the shares that Francelec holds of each customer's needs, the use that each customer makes of its bargaining power and the importance given to dependence.

Finally, as far as differences between the three situations are concerned, we have argued and hypothesized that factors such as physical distance, the customer's organization and procedure, its importance to Francelec, as well as its purchasing strategy, could explain most of the distinctive features observed. Similarities, on the other hand, are mainly due to the type of product that is sold, the risks involved in buying it, and the mass production technology of the customer.

MEKANIK & MOTOR AB — A Case about the Marketing of Components to a Systems Seller

Lars Hallen

INTRODUCTION

The concept of systems selling is, of necessity, connected with some kind of systems buying undertaken by the firm that is responsible for the systems project. A firm may accept the task of delivering a complete specially designed unit such as a dairy plant, a nuclear power station, a car assembly plant or a ship to a customer in order to put at the disposal of the customer a facility for production or service rendering purposes. That customer is then able to use this facility or total system in his transactions with his own customers who would not normally have the ability to produce the complete system itself. The specific competence of the systems seller often is to be found in the field of designing rather than construction. Therefore, the production and product development activities of the systems seller often must be conducted in co-operation with external suppliers.

As a consequence, corresponding to the systems buying activities there are the marketing activities of the suppliers of various elements of the system. The high degree of buyer—seller integration often required by the complexity of the system design leads to a rather high awareness by the project partners of their roles in the total project — from sub-contractor to the end-user.

In this case we will discuss a component supplier's marketing of a major component to a systems seller. The relevant setting of parties involved in this case, therefore, will not be the conventional dyad of buyer and seller, but rather a `menage a trois' involving not only the component supplier and the systems seller, but also the buyer in the next stage: the customer's customer.

There is no clear dividing line between what is conventionally understood by `systems selling' and the marketing of big specially designed products made to order. The case of commercial ships might be considered to be an example on the boundary of the systems selling business. However, many of the properties of the systems selling situation are also present in the case of the shipyards, e.g. the complex system of sub-contractors — a varying set for each project — and the high involvement of the customer's customer, in this case the shipping-line. As seen from the component supplier's point of view, the major difference between the component supplier's role in an `ordinary' systems selling project — e.g. a turnkey project in the form of a factory — and the role he fulfils in a ship-building project is the mobility of the system — the ship. This apparently trivial observation, however, has profound effects for the component supplier, as it erects considerable barriers to entry to the market. It is not a viable alternative to be a `minor' sub-contractor to a project, because the component that has been delivered will travel all over the world and will thus require servicing worldwide. A supplier of components to a

stationary production unit, such as a factory, can either choose only to participate in projects in certain areas or else he can seek the support of the systems selling firm, who normally maintains some kind of presence at the place where the project is established in order to protect its investment.

The supplier of components to a ship-builder cannot expect any such presence by the shipyards in the foreign world ports.

The Firm

The component supplier, in this case Mekanik & Motor AB (hereinafter abbreviated to MM) is a wholly owned daughter company of one of the largest industrial groups in Sweden. It is not located in the same city as the Group's head-quarters, but in quite another part of Sweden. Before the company was bought by its present owners it already had some marketing co-operation with the foreign selling subsidiaries of the Group to which it now belongs. This co-operation, of course, has continued after the take-over, and there has been some transfer of production between the Group and MM. Generally, however, the firm has remained quite independent of the Group. The main link between MM and the Group is the common accounting system and to a certain extent the name, as the firm often uses the Group's name when selling abroad. But the need of close buyer—seller contacts as well as the firm's geographical isolation from the mother company has contributed to the fact that MM basically operates independently from the parent firm.

MM's turnover is about 500 million Sw. crowns (equivalent to £55m) and it is divided into a number of product sectors, that are organized in similar ways with almost all company functions decentralized to the sector level. Each sector has its own marketing unit. The organization principle of the marketing units is a geographical basis, but as there are not very many shipyards in every area the organization tends towards a customer-oriented type.

The field organization is made up of agents and of the Group's foreign selling subsidiaries. The role of the foreign representative is to collect and to transmit information and not to conduct negotiations nor to make agreements, and therefore particularly large foreign units are not needed. This gives MM a free choice between the agent representation and the representation through the Group's daughter companies abroad. As a sign of MM's independence in relation to the parent company, one may mention that one of the Group's daughter companies once was replaced by an independent agent because MM considered that the agent's competence was better suited to the needs of the firm. It is also in line with MM's general independence that the foreign unit is not too strong, as there is a strategic ambition to keep the contacts between the shipyards and the shipping-lines on one hand and MM on the other as close as possible.

The product dealt with in this case is one of the major mechanical components of a freight ship. MM produces a technically advanced version of the product particularly designed for big ships, and consequently, only the biggest shipyards are potential customers to MM. The project character of the shipyards' production technology leads to a considerable irregularity in the size and frequency of

the orders that MM receives from a particular shipyard. On average the order frequency is about one order yearly from the big shipyards. The irregularity of the orders is shown by the fact that MM's ten largest customers account for some 70 per cent to 100 per cent of the turnover of the product division responsible for the mechanical ship component in question, but these ten customers are not the same ones from one year to another.

Market Relationships

The vertical market relationships, i.e. those with MM's customers, are mainly characterized by two peculiarities, that have already been indicated above. Firstly, there is irregularity, due to the project character of the shipyards' production, and secondly, there is the two-stage customer grouping: the customers – the shipyards – and the customers' customers – the shipping-lines. MM maintains contacts with both customer groupings. The contacts with the formal buyer, the shipyard, are more extensive and regular, whereas the contacts with the `real' customer, the shipping-line, are considered to be more crucial. The shipping-lines constitute a more heterogeneous group than the shipyards both with regard to size, regularity of purchasing, and location in the world. Only the big shipyards are able to produce the big ships that need the special component that MM produces, but both small and big shipping-lines can buy big ships. There are often connections between shipping-lines and shipyards, but still shipping-lines very often place orders with shipyards in other countries than their own. This furthermore increases the need for a flexible organization in MM.

A ship-building project goes through several stages before the definite orders for components are placed. Those who are involved in the business often are able to learn, at quite an early stage, that a certain shipping company plans to order a ship. In Sweden MM itself normally is able to obtain this information, and abroad this kind of intelligence typically is the role of the local agent. At this first stage of the project the personal contacts between the component supplier and the ship-yard or the shipping company are crucial, as the first `outpost skirmishes' between the parties concerned now take place. The purpose of these contacts is to exchange information regarding preliminary prices of the component.

After this initial stage of informal contacts between all the three parties there follows a period of contacts between the shipyard and the shipping company ending with an offer from the shipyard to the shipping company. The shipyard's calculations for this offer are based on the cost estimates that have been made, including the components that have been discussed during the initial informal contacts. The influence of these components on the total project cost often is considerable, as ship-building is largely made up of the assembling of parts. Just the two most important component categories often account for as much as one third of the total cost of the ship.

The third stage of the negotiation process is made up of those discussions between the shipping company and the shipyard that may lead to the acceptance of a modified offer and the conclusion of the final contract. At this stage the order is made public, and it is not necessarily too late for a component supplier to

become aware of the business now, as the sub-contractors often are not specified in the contract. But it is, of course, very advantageous for the component supplier to be able to submit the early cost estimates that comprise the basis for the ship-yard's offer.

The fourth and concluding phase consists of the final negotiations between the shipyard and the component supplier. Thus the contacts between the shipyard and the sub-contractor are most intensive during the first and the last of the four stages described above. But simultaneously, there are also contacts between the shipping company and the sub-contractor.

One of the purposes of these contacts is to obtain `owner's supply', i.e. an agreement between the shipping company and the component supplier about deliveries of components to the shipyard directly paid by the shipping company.

In this case study I will focus on the shipyards as buyers of MM's components, but still retain the shipping-lines within the framework of analysis. In describing the importance of the various market countries for MM I, therefore, specify the percentage of MM's turnover going to foreign shipyards and only indicate the location of certain important shipping-lines. It should be observed that the figures are estimated as an average for the period 1972-77, as the variations from year to year may be considerable.

As seen in the chart, the export share is 85 per cent which is very high, but this still represents a decrease during the last three years from a previous export share of 95 per cent. This variation is, however, not interpreted as anything but a temporary variation. But as the ship-building industry throughout the world is in a state of flux, the future development generally is quite uncertain.

The horizontal market relationships, i.e. those applicable to MM's competitors, are defined by the product concept. As mentioned above, the product is a specially designed and technically advanced mechanical component. There are other less sophisticated ways of fulfilling the function required of the product, but with respect to big ships built in Europe MM's technology is absolutely dominant. Therefore, it is relevant to define competitors and market shares on MM's product definition. This gives MM quite a high market share, viz. about 35 per cent globally. Within the EEC countries, MM's share varies from year to year between 25 per cent and 85 per cent.

Supplier (*Component Manufacturer*)	Customers (*Shipyards*)		Customer's customers (*Shipping lines*)
MM →	Sweden	15%	Norway, Britain, Sweden
	Britain	20%	Germany, United States,
	W. Germany	15%	Denmark, Philippines,
	France	20%	Cyprus, Liberia,
	Italy	5%	Panama, etc.
	Others	25%	

The remaining 65 per cent of the total market are supplied by competitors that work on an international scale (as MM does) and by nationally operating firms. The major international competitors are two German firms. National competitors are operating in Britain, France, and Norway. These national firms are considered by MM to enjoy somewhat unfair privileges, as the industry is deemed to be subjected to clear-cut protectionism. Lobbying for government support is a major element of competition. This makes Germany the market with the strongest competition as seen by MM, because the German competitors there have the double advantage of being as internationally oriented as MM and at the same time of operating in their home market.

MM's major advantage is its greater experience of the industry in general, in that they have been operating in the important markets longer than their competitors.

An effect of this is that a larger part of the components already in use in the world's trade fleets originate from MM, which enables it to keep a better world-wide servicing organization than competitors. This also has a favourable effect on MM's general reputation with the shipping-lines. MM's disadvantages in competing with the Germans particularly are considered to be higher cost and price. A corollary of this is that MM has standardized its component to a higher degree than the competitors which, however, has positive effects for MM with respect to servicing and spare parts.

In order to analyse the interplay between the parties we will discuss MM's relationships with customers in two countries. The domestic market is selected as an example of a market where MM's position is strong, and the German market is selected as this is the market with the strongest competition.

THE SWEDISH SHIPYARD — STORA SKEPPSVARVET (SS)

Sweden is one of the major ship-building nations of the world. The structural changes of the world economy — e.g. the reduced demand for tonnage due to the recurring upheavals in the oil-producing industries and the advancement of low-cost ship-building nations in East Asia — have struck the Swedish ship-building firms very hard, and this industry is now considered as one of the four or five chronic crisis industries of the nation. The ship-building industry has been subjected to quite drastic restructuring; by 1978 all major shipyards have been nationalized and brought together in a state-owned group, Svenska Vary AB. The shipyard that here is called Stora Skeppsvarvet (SS) consequently now is a part of Svenska Varv. This case deals with the situation in 1977 before the amalgamation of the industry, but there are no immediate reasons to believe that this would mean that the character of the relationship is likely to change drastically.

SS is a technically advanced shipyard with ownership connections with a big shipping company. Before the amalgamation of the industry this firm accounted for 75 per cent of MM's domestic sales. Ever since MM started to manufacture its ship component fifteen years ago there has been a special relationship between MM and SS. In the sixties MM had developed a new product technology, and one

of the minor Swedish shipping-lines wanted to use this technology in a ship, that was to be built at SS. The product was developed in co-operation between SS and MM, and this technical co-operation between the two firms has continued since then. New technical solutions that MM has designed are often tested by SS before any other shipyard's orders for these modified products are accepted. MM considers it beneficial that SS has high requirements (being one of the world's most advanced shipyards) and that the contacts between the two firms are so close that the mutual confidence that is required for product development and testing co-operation really is there. Another example of the close contacts between SS and MM is the open and frank assessments of the prospects of the ship-building industry that MM and SS regularly make together. In the home market these close seller—buyer contacts are facilitated not only by the absence of cultural and language barriers, but also by the fact there are no intervening agents between the firms, as a direct selling method is feasible.

We shall now discuss the relationships between three parties. The three parties are MM (the producer), SS (the customer) and CC (a major Swedish shipping company — the customer's customer). During the seventies MM has made deliveries to the shipping company (CC) three times.

The rate of the delivery to the shipyard (SS) has been considerably higher, as MM has supplied components to two SS projects per year on an average. This situation — more frequent deliveries to the shipyards than to the ultimate customer (CC) — is typical for the industry. Shipyards may be in financial trouble, but normally they re-emerge in one shape or another, whereas the ship-ping companies' existence is more uncertain: they sometimes appear and disappear over rather short spans of time. Furthermore, the total number of shipping companies by far exceeds the number of shipyards.

The product that MM sells is normally a specially designed product made from standardized components. With regard to SS the product has often been of a new type not sold to other shipyards. These modifications are mostly based on suggestions from the shipping companies. SS has something of the status of a trend-setter in the ship-building world. The shipyard almost always has to make technical adaptations in order to incorporate the product into the ship. This is one of the reasons why it is very advantageous to the component supplier to be able to influence the shipyard or the shipping company before the conclusion of the agreement between those parties, as this reduces the need of redrawing the construction plans. The relations between SS and MM are characterized by MM always entering into the project at an early stage. The closeness of the relationship is shown by MM's 75—80 per cent share of the customer business.

After the shipyard has ordered the component from MM it takes about a year before it is delivered. MM's component is incorporated into the ship at a late stage of its construction, which gives plenty of time for MM's production planning. In relation to SS this procedure always runs smoothly.

The contact pattern between the three parties is very complex. Both from the perspective of the component supplier and the shipyard many departments and many persons are involved. Fifteen persons from MM are in contact with about fifteen persons from the shipyard (SS) and ten persons from the shipping company

(CC). The key role in this process is played by MM's marketing unit, particularly at the early stages of the process. Several other departments also have important and direct contacts with both the shipyard and the shipping company: the general management, the design department, the project department, and the finance department. After the installation of the product the service unit and the spare parts unit also get involved. It is a conscious approach by MM to have all these separate routes of communication open. The width of this communications system may be the most critical factor in the marketing process. The reasons for this can be specified as below:

(a) With respect to the shipyard it is crucial to have early information regarding all projects, as this provides MM with the opportunity to influence the specification for the order. There are no technological adaptations made between the firms per se as all the technical adaptations that the buyer and the seller make with respect to component and ship only affect that particular project. MM normally supervises the fitting of the component into the ship, but this does not represent any technical adaptation from the shipyard. Neither are there any long-term distribution or payment systems established, as the rate of delivery is rather low. The average of four projects yearly that has characterized the SS–MM connections is uncommonly high, but this is still far less than the delivery rate that warrants the establishment of logistical systems in the mass-producing industries.

Consequently, the only remaining method for the seller to tie the shipyard to itself is by means of institutionalizing an extensive communication pattern. In this way both the objective of influencing the early stages of a project as well as having a good chance to win the final order as the sub-contractor for a specific project are achieved.

(b) With respect to the shipping company (CC) there are however long-term technological ties, as a shipowner for service purposes normally does not want to have different types of these components in his ships. Personnel from the shipping company are invited to MM's plant for training in the handling of the component. The lower degree of institutionalized personal contacts are thus offset by a technological dependence. However, MM's competitors, who apply this same technology, are possible suppliers to shipowners who already have chosen MM's technology once. Therefore, it is very important to have contacts with the shipowners to influence them in MM's favour during the shipowner's negotiations with the shipyard. The more or less continuous contacts of the after-sales departments (service and spare parts) are also important in this context.

Summarizing, we here find an intricate situation involving three parties in a `game' which is heavily based on informal personal contacts. The interests of all three parties are not necessarily always compatible. There may be tendencies of one party to try to form a coalition towards the third party. An example of this, as seen from the point of view of the component supplier, will conclude this section.

As mentioned above, there is a project unit in the component supplier firm: similarly, in the shipyard and in the shipping company project units are established. The component supplier considers the main task of the project leader at the shipyard to be to prevent too much contact between the ship-owner and the component supplier. Being responsible for the project unit in the systems selling firm he may consider himself to be the hub of the communications network. But it seems as if the mere existence of this function at the shipyard would just strengthen the attempts of the component supplier to maintain an extensive communications network of his own. The direct contacts with the shipping company may result in `owner's supply' to the shipyard (see above) or secret agreements that the component supplier may compensate the shipowner for some of the cost if MM's components are ordered through the shipyard.

THE GERMAN SHIPYARD — GEBRUDER GUNTHER

It is in Germany that MM is confronted with the strongest competition because MM's two major competitors are German firms. In spite of this, MM has supplied between 30 per cent and 40 per cent of the needs of the Gebruder Gunther Ship-yard (GG) during the last five years. GG is a large and technically advanced ship-yard which is building for German as well as foreign shipping companies. Its contacts with MM date back to an order that was won four years ago. The contacts with the German shipping company (DD) which was involved as the customer's customer in the latest order from GG, are older and were established eight years ago. There is a strong connection between this shipping company (DD) and the shipyard (GG).

The involvement of the shipping company has been of some importance in this latest project. The shipping company is a patriarchic firm dominated by the general manager and his son ('Junior'). MM has good relations with `Junior', who acts as a communications link to the board of the shipping company. It is necessary to deal very politely with this board, but still MM is of the opinion that the project unit at the shipyard is a more important contact than the shipping company.

MM is on GG's list of potential suppliers, and consequently MM is informed of all GG's ship-building projects at an early stage. MM does not have to wait until the order has been made public before the work to win the order can start. Information is relayed to MM not only through GG's official inquiries and `Junior' at the shipping company, but also through MM's agent, the Swedish group's daughter company. This agent is also involved in the sales of other components to the shipyard that are made by MM's sister companies and MM is quite satisfied with the performance of the agent. The agent regularly informs GG about product modifications and other news. It is indicative of the competitive situation in Germany that it is not possible to relay this information to all MM's German customers at common customer meetings. The competition between MM's German customers is so strong that they would not accept the idea of discussing anything with MM when their competitors were present.

The latest project was very much a standard order for MM with respect to the product, as no modifications were required.

Six persons from MM (including the agent) represented marketing, design, production, and service, in the contacts with the Germans; and two persons from the shipyard, (the director of purchasing and the project leader) and four persons from the shipping company, ('Junior' and three engineers) were involved from the two German firms. The objectives of the two German parties were somewhat dissimilar: GG wanted easily fitted components, whereas the shipping company (DD) had a priority for easily serviced components.

In order to win the order MM had to make certain concessions. To please the shipyard MM agreed to supervise the fitting without extra charges, and the ship-ping company got an extended guarantee period as well as free access to spare parts to a higher value than would apply in normal circumstances. These concessions should be seen against the background of a hard and competitive situation in Germany.

CONCLUDING REMARKS

This case can be seen as an illustration of the importance of the social element in the marketing of industrial products. The role of component supplier to a systems seller such as a shipyard deprives the supplier of two of the tying mechanisms that may act in his favour in the mass-production business. The low order frequency does not necessitate logistical adaptations between the parties, and the unique character of each single ship does not necessitate production adaptations on the part of the systems seller. In the absence of technical and distribution adaptations, the institutionalization of communication patterns becomes vital.

Thus, the main disadvantage of MM in the German market, as compared to the Swedish market, in the opinion of MM's marketers, is not a cost differential, but the problem of access to informal personal contacts.

The difference between the two markets is highlighted by the attitude of MM towards the project leader at the shipyard. In the Swedish case SS's project leader is considered as having a primary objective of preventing certain direct contacts between the shipping company and MM. In spite of this, it is obvious that such contacts are very frequent and important. In the German case, the shipyard's project leader is accepted as the pivotal person on the German side, although MM has access to a good link with the shipping company through `Junior'.

Another differentiating factor is the conflict between the domestic operations and export sales. Although MM is well established with servicing points world-wide, it is clear that the product development activities that are conducted in co-operation with SS, could hardly be carried out with foreign partners. To quote a marketer of MM:

> `Of course SS gets more information about our products and their functioning than the foreign shipyards do. At SS they understand Swedish, so they can read all documents we may want to submit to them: and Swedes somehow are more trustworthy'.

Thus, that which is a disadvantage to MM in the foreign markets is an advantage to them at home. An attempt a few years ago by the major German competitor to make inroads into the Swedish market was thwarted due to MM's better communications network.

The less extensive contacts that exist between MM and certain foreign ship-yards may be seen as a positive factor, as MM does not want to disclose too much to them. Overall, this marketing situation implies that the crisis of the Swedish ship-building industry probably will also affect MM's ship components' division, even though MM operates on an international scale.

MASCHINENTECHNIK GmbH UND MOTOREN AG *Michael Kutschker*

INTRODUCTION

The marketing of industrial goods differs from that of consumer goods among other things in that the conditions under which the goods transaction should take place are settled within a joint multipersonal problem-solving and bargaining process between the representatives of the organizations concerned. Activities commonly referred to as marketing instruments, such as price, product, distribution, and communication mix, are thus a fixed part of the direct negotiations. Con-cessions in price reductions, rebates, extra services, and product modifications cause additional costs which must be carried by one or both parties. They raise the profitability of the transaction for the negotiation `winner' and reduce it for the `loser'.

The evaluation of the gain itself is a problematic process of collective ex-post rationalization. There are seldom clear criteria for the evaluation of qualitative losses and gains. It is hardly possible to calculate an exact overall gain or loss if, for example, a price reduction has to be set off against the advantages of enlarging the market share or getting a foothold in a new market. At most, one can have an overall impression of the outcome of the negotiations. Practitioners obtain a good impression whether they got off cheaply, whether they made a compromise, or whether they had done a good deal. However, this picture of reality is blurred by the fact that often both parties to a negotiation claim to be the winner or the loser.

In the following cases, therefore, we have restrained our analysis to those parts of bargaining outcomes which causes for one party – as far as possible – quantifiable costs and diminishes the profit. We concentrate on modifications, adaptations, and additional services granted by one party without monetary equivalent. Referring to the above argument this would not mean that concessions in these bargaining objects should be interpreted as an overall loss in the interaction process.

One of the most often used concepts in social sciences for the explanation of the

outcome of two social systems' interaction process and negotiations is power theory; power being expressed in terms of organizational attributes, like organizational size, quality of management, and market position. One of the problems still unsolved is the measurement and operationalization of the abstract term `power'. In the following case analysis and the generalization on the basis of a larger German sample, we will use the size difference of both interacting organizations as a rough indicator of power and will use it as an independent variable for explaining the amount of additional services, which must be given by a supplier and/or customer organization.

Differences of opinion exist in the literature as to the role of the size of supplier or customer organization in explaining the amount of additional services. It is debated on the one hand that large concerns can, and do, produce these additional services more easily because of their specialized structure. On the other hand, the power aspect connected with the company size is emphasized. It is assumed that large producers can more readily resist demands for additional services and that large users can enforce them more easily than smaller concerns. As mentioned above, this demonstrates that the size difference is possibly responsible for the extent of the secondary services provided in a transaction. We would like to illustrate this fact and the hypotheses it suggests by using two cases.

This has the advantage of not being constrained by a single company data base. As the supplier-customer relationship was not selected for this aspect of size-difference, `suitable' cases are scarce, in which a supplier delivers equally to smaller and larger customers. For enlargement of the case analysis, therefore, we have used two companies. Both firms, apart from the physical product, are comparable with regard to size, international orientation, technology, and above all their customer structure, which makes the comparison of both cases especially interesting.

THE SUPPLIERS MASCHINENTECHNIK GmbH (A) AND MOTOREN AG (B)

As shown in Table 1, both companies are relatively large. Maschinentechnik's turnover is equally divided between two product lines. The first is very export-intensive, comprising machine tools, which can be employed in various branches and processing stages. The second product line consists of up to 80 per cent of those products which are produced by the machines sold under the first product line. In this way, A competes by means of product line 2 with those customers who buy the machines of product line 1. The customer relationships presented here concern the machine tool sector (product line 1).

Motoren AG produces exclusively engines of various capacities, which range from 1—15.00 kW and are suitable for both stationary use and in various types of vehicles. The export proportion is considerable there too, fluctuating between 50—70 per cent being mainly exported within Europe, but also in the Third World countries.

Table 1

	Maschinentechnik GmbH Firm A	Motoren AG Firm B
Employees	2,500	6,000
Turnover 1976 (£)	52 million	110 million
Export		
Product line 1	70%	50%
Product line 2	35%	70%
Turnover in countries (£)	*Only product line 1*	*All products*
France	1.75 million	18 million
Germany	6.2 million	15.5 million
Italy	1.0 million	0.52 million
Sweden	1.0 million	0.25 million
UK	1.5 million	0.5 million

THE CUSTOMERS

In both firms the customer structure is mixed, ranging from minor customers to the large European automobile manufacturers. This formed the initial point for our comparison of customer relationships, as respectively the relationships with a large French and a large British automobile manufacturer are compared with relationships with customers which are of equal size or are smaller than the supplier companies. For illustration we will use two customer relationships from both companies. Not reported are A's relationships with a Swedish car manufacturer and B's relationship with a British shipyard. Both relationships proved to be almost identical to the Aa and Bb relationship and would only improve our argument quantitatively.

THE CUSTOMER RELATIONSHIPS OF MASCHINENTECHNIK GmbH

The English Customer (Aa)

The English customer belongs to the car industry and has a turnover of £600 million. It has a strongly international orientation and sales turnover was declining sharply in its own country as in the rest of Europe. Firm A has delivered machine tools since 1930 to this company, and its legal predecessors. In 1965, the highest turnover (£1.5 million) with this company was achieved, since when it has decreased quickly until 1976, going down to zero. Since 1976, the year of the customer's near bankruptcy, the turnover recovered and amounted to £0.5 million in 1977. The product (machine tools) accounts for 75 per cent of the turnover with this customer. The remainder consists of products which can be produced with the machines sold, but can be more economically produced by Firm A. The

customer also buys machine tools of the same type from other firms, which originate in the UK and Germany. Compared with these competitors, the Firm A's product is more expensive, but more modern and of better quality. Further-more, Firm A is thought to have more technical know-how and a better relationship with the customer.

The German Customer (Ab)

The German customer is only a little larger than the supplier, with 4,000 employees and a turnover of £100 million. In certain product fields the customer competes with the products from the supplier's product line 2. This rivalry was the cause of a break in business relations lasting over a decade.

The relationship was formed during World War II and has continued up to the present day with the exception of the interruption mentioned.

It is regressing recently due to the downward movement of the general economy. In the near future, neither an improvement nor a deterioration is expected. The present turnover with the customer amounts to £50,000, following a maximum of £125,000 in 1970. Apart from machine tools, the customer takes none of the firm's other products.

Maschinentechnik's market share is not higher in Germany than, for example, in Sweden and England (35 per cent). This comes from the fact that three to four German and English competitors have to share the European Market. An American firm poses strong competition in Germany. The Firm A is thought to be better than the competitors' as regards service and customer advice, especially in Germany. The product is also thought to be of better quality, and the technical know-how is rated higher.

THE CUSTOMER RELATIONSHIPS OF MOTOREN AG (B) The

French Customer (Ba)

The French customer is one of the largest French automobile manufacturers. The built-in engines are supplied to the `agricultural vehicles' and `fork-lift trucks' divisions. Apart from the built-in engines of 12—38 kW, no other products are supplied. The customer takes 85 per cent of Firm B's turnover in France, the remainder is divided between a further twenty-five French customers.

First contacts were made in 1955. Up to 1970—71, business was moderate but, since then, has increased steadily to reach the present level, which was not specified, but is estimated at £8 million. A change in the management of *both* firms is credited with this increase. Motoren AG's own share of the market is given as 22 per cent. The market leader is a German competitor who holds 30 per cent of the French market, but who does not supply this customer. The customer buys these types of engine from Firm B alone. It can be easily seen from these figures, that supplier and customer have entered into an unusually close dependency.

The Swedish Customer (Bb)

The customer in question is a small shipyard concern (£5 million per annum turnover) who is supplied with ship's engines of up to 6,000 kW. Besides these ship's engines other items, spare parts, and small engines contribute 30 per cent to the total turnover. Although previously the customer's sole supplier, Motoren AG now delivers no more than 50 per cent of the required engines, as his prices are too high compared with those of the English competitor.

Business relations were initiated by an agency in 1963, collapsed briefly in 1972 and are regarded as positive for the future. The proprietor is characterized as a pioneer with whom there exists a relatively good social relationship. The product price is higher than that of the competition, but quality is higher and the technical know-how is regarded as better.

SIMILARITIES AND DIFFERENCES IN THE CUSTOMER STRUCTURE

Considering now the relationships with customers, both of Firm A and Firm **B;** although the products (engines and machine tools) are different, there are several similarities in the technological range of application. The end product and its application must thus be attuned to the product by means of a primarily technological problem-solving process. Quality and delivery irregularities have a drastic influence on the business relationship in both bases. Two out of the three types of product, namely machine tools and ship's engines, are made by small-batch production where modifications to the standard product correspond to the customer's wishes, where necessary. The built-in engines are standard products from the assembly line, which are, however, designed, adapted, and produced in co-ordination with the customer's needs.

In two cases the customers concerned belong to the `giants' of European industry, whereas two firms are of the same size or smaller than the supplier. In accordance with the parts supplied, the absolute turnover figures are considerably higher with the large firms than with the smaller ones. The customer characteristics and turnover relationships are summarized in Table 2.

It can be seen from the table that two types of customer—supplier relationships exist as regards the size compatibility which can be found in the firms involved in the interaction: relationships with larger automobile producers and relationships with firms of comparable size or smaller. The extent to which this can have an effect on the structure of the business relationship will be documented in the following explanation:

Additional services are not only advantageous for the customer, but perform the function of a marketing instrument for the supplier. Moreover, an intensive after-sales service, for example, permits excellent customer care and is a constant proof of the performance ability of the supplier. These reasons, which are positive for the supplier, do explain the increase in the offers of additional services, which are already a component of the business philosophy of not a few firms in Germany.

Table 2 Characteristics of size relationships between suppliers and their customers

	Customers of Firm A		Customers of Firm B	
	Aa	Ab	Ba	Bb
	UK	Germany	France	Sweden
Turnover of customer (£)	0.6 billion	100 million	0.25 billion	5 million
Size relation (supplier/customer)	<	=	<	>
Turnover with customer (£)	0.5 million	50,000	7.5 million	n.a.
First contact	1930	1940	1955	1963
Share of customer demand	35%	60%	100%	50%
Share of country-specific turnover	30%	1%	80%	1.5%
Product	Machine tools	Machine tools	Built-in engines	Ships' engines

< Customer much greater than supplier.
= Customer is as large as the supplier.
> Customer is much smaller than supplier.

Initially, such additional services certainly cause higher costs for the supplier which can be only rarely passed on in the price to the customer. In view of the buyers' market, customers are increasingly demanding the services free of charge. Torn between the cost and marketing argument, the manufacturers are trying to keep these services within normal limits. Our thesis now aims at the fact that it is easier for `large' customers to motivate the suppliers to a `voluntary offer' of such services in the negotiations than it is for small customers.

The boundaries of the term `additional services' are not clearly defined, neither in practice nor in theory. We will take a pragmatic course hereinafter and characterize all such services as software or additional services, which we assume cause extra financial costs or which it must be assumed constitute barriers to 'normal business' which must first be overcome by the customer or the supplier in order to secure them.

In Table 4, the various services which are offered in addition to the original physical product are listed in the top column. Such services are subject to negotiations. This list does not cover the scope of all possibilities but confines itself to the services and modifications collected in the interview.

Table 3 is divided into four parts. In the first quarter, those services are listed which can be relatively easily identified as additional services, and thus rather give the impression of a product-dependent standard offer of additional services which are offered independent of the demand power. This is obvious in the comparison of customers Ba with Bb. Ba receives built-in engines, for which the customer naturally takes over the installation himself; maintenance service is not necessary with this product. In comparison, both these services are offered to the smaller shipyard, as the installation and maintenance of the engines requires specific know-how which only the manufacturer has command of. The customer relations of Firm A present a similar picture, as there are no differences here in the `normal'

Table 3 Adaptations made by suppliers and customers

		Maschinentechnik GmbH Supplier A		Motoren AG Supplier B	
	Customers	Aa/UK	Ab/Germany	Ba/France	Bb/Sweden
	Size Relation	<	=	<	>
I	*Additional services offered*				
1	Instruction	x	x	x	x
2	Technical advice	x	x	x	x
3	Installation service	x	x	–	x
4	Maintenance service	x	x	–	x
5	Local stocks	–	–	–	–
6	Stocks of spare parts	x	x	Kept by customer	x
7	Others	Pretests	–	Joint problem solving	–
8	Others	Extended quality control	–	(On construction)	–
II	*Customers' adaptations*				
9	Product and production process	Important modifications with rationalizing effect	Modification initiated by A	Important adaptations	–
10	Stock policy	–	–	Buffer stock	–
11	Adaptations to commercial conditions	–	No penalty, no prolongation of financial terms	First class handling by customer's administration	Contract in Deutchmarks
III	*Suppliers' adaptations*				
12	Solving specific problems	Yes, often	Yes, seldom	Yes	Yes
13	Production adaptation	Significant	None	Significant	Minor
14	Process variation	–	–	Significant	–
15	Despatch	Yes	–	Reorganization	–
16	Location	Headquarters of subsidiary	–	–	–
17	Technical advice	As usual	As usual	Preferential treatment	As usual
18	Maintenance	Maintenance plan developed	As usual	–	As usual
19	Payment terms	Strong concession	No concession made by A	Long term credit	–
20	Rebates	Price reduction	–	Price control by customer	Low

Table 3 (continued)

		Maschinentechnik GmbH Supplier A		Motoren AG Supplier B	
	Customers	Aa/UK	Ab/Germany	Ab/France	Bb/Sweden
IV	*Author's evaluation* Of adaptations				
21	– technological	+++++	None	+++++	+
22	– commercial	+++	None	+++++	+

+++++ = very large adaptations made by supplier
+++ = large adaptations made by supplier
+ = minor adaptations made by supplier

additional services. As listed under the heading `others', the large customers Aa and Ba could animate the suppliers to provide additional services which, in the case of Ba, on the base of mutual interest, has been the result of a joint problem-solving process leading to a joint product development, construction, and test. In contrast, the pre-tests and extended material tests were charged to the supplier in the case of Aa.

The second and third quarter of Table 4 show the adaptations and modifications on technological and commercial issues by both the suppliers and customers, which together with the additional services of the first quarter are summarized in the last two lines of Table 4. This summing up is a subjective evaluation by the author which is based on a comparison of the four cases, which should impart an overall impression as regards technical and commercial modifications. It can be seen from this summary that B was forced to undertake the greatest adaptations in the technical as in the commercial field in relation to Ba. In the case of Aa, product modifications dominate, although great adaptations had to be undertaken on the commercial side. The small customers were hardly able to realize their expectations, neither Firm A nor Firm B were willing to make important concessions. Ab even had to cancel the usual penalty for non-performance.

SUMMARY

We have chosen the cases consciously so that the firms and their customers are as alike as possible as regards certain factors such as product technology, internationalization degree, size of the firm, product application, and number of product lines, but where the size relationships between suppliers and customers are as dissimilar as possible. Therefore, in our examination we can isolate this as an influencing factor which we assume can affect the relationship between customer and supplier. It will not have escaped notice that, unfortunately, a variation in size relations also means a variation in customer's absolute turnover along

with the customer's relative market importance. In this case, demand power expresses itself in size relations as well as in absolute turnover. Our initially-formulated global hypothesis is open to criticism because of differences in the importance of the customer alone, which can be measured by the turnover achieved with him.

GENERALIZATION

If we now leave the case examples and change to the total sample of the German sales operative interviews, we gain benefits in ability to generalize, but lose control over the other influencing factors, such as the product technology which were isolated in the case discussion through choice of two companies of comparable technology. This `loss' must be kept in mind if we want to test our theories in bivariate variable connections.

In our initial discussion we presented the power aspect between supplier and customer firm as an important influencing variable in the additional-services offer. If we first concentrate on the supplier's view of the relationship and neglect the size relations to the customer, then we can generally assume that the power to reject customer's additional-services demands increases with increasing supplier's size. Instead of using all the extensive forms of additional services identified in the case studies, we would like to restrict this now in order to achieve an operational comparison of all the cases.

We have classified the additional services in three classes:

Pre-sales services
— Technical advice
— Local product stocks
— Development services (modifications and new product designs)
— Other

Secondary (supplementary) services
— Personnel training
— Installation
— Other

After-sales services
— Maintenance service
— Spare-parts stocking
— Other

Table 4 shows the relationships between the provision of additional services and the supplier's size, measured in figures of turnover and employees.

Learning from this result one can argue that the `one-way' power aspect of size also holds for the customer company, i.e. the larger the customer, the more additional services it gets. Table 5 shows that this assumption is falsified.

As a provisional result we can state that the amount of additional services

Table 4 Correlation between number of supplier's employees and secondary services

Secondary services	No. of employees in supplier firms				
	Up to 500	500–1000	1000–5000	Over 5000	Overall share
Low	20.0	22.7	5.6	86.7	30.7
Medium	40.0	45.5	27.8	13.3	33.3
High	40.0	31.8	66.7	0	36.0
					$N = 75$

$\chi^2 = 33.74; p < 0.001; \gamma = -0.31$

Table 5 Correlation between number of customers' employees and secondary services

Secondary services	No. of employees in customer firms			
	Up to 1000	1000–10,000	Over 10,000	Overall share
Low	29.2	22.7	25.0	25.7
Medium	33.3	36.4	41.7	37.1
High	37.5	40.9	33.3	37.1
				$N = 70$

$\chi^2 = 0.60$; n.s.; $\gamma = -0.01$

offered, varies negatively with the absolute size of the supplier, but is independent of the customer's size and importance.

The influence of power potential could be worked out more clearly if, instead of the absolute size, the size-difference between supplier and customer is used as indicator for the power relationship. However, we shall not forget that using size-relationship as an indicator for power potential is only a makeshift solution. Otherwise, we move into the realms of political science, where power of nations is measured in figures of gross-national products. As in the theory of industrial marketing, few attempts exist to use differences in the organization's attributes as predictors of social behaviour, our approach should be interpreted as a first step, hopefully providing a challenge to better operationalizations.

The results in Table 6 confirm our assumptions. Because in this form of operationalization the product complexity does not have an effect, this result has to be understood not as a proof, but as a promising hint towards a perspective concerning industrial marketing, which takes into account the potentials of organizations.

CONCLUSIONS

Our analysis certainly suffers from the fact that we only checked bivariate relations, a method often found in empirical research. This will be clear when listing all the independent variables influencing the amount of additional services offered.

Table 6 Correlation between turnover relation and secondary services

Secondary services	Supplier > customer	Supplier = customer	Supplier < customer	Overall share
Low	44.4	48.1	14.3	32.5
Medium	33.3	33.3	34.3	33.7
High	22.2	18.5	51.4	33.7
				$N = 80$

$\chi^2 = 12.21; p < 0.02; \gamma = 0.45$

Table 7 Factors influencing the amount of additional services offered by the suppliers

Variable	χ^2	Cramers-V	ETA^2
1. Complexity of product	0.874	0.523	0.54
2. Product (raw materials, components, equipment)	0.874	0.505	0.44
3. Price	0.697	0.516	0.43
4. Delivery frequency	–0.550	0.405	0.30
5. Innovativeness of product	0.508	0.318	0.17
6. Supplier size	–0.476	0.381	0.24
7. Relation size	0.451	0.276	0.13
8. Length of relationship	0.361	0.281	0.04

We can learn from this table that the pronounced aspect of attribute difference is only one explaining factor among others. The most important influence is shown by product characteristics like its complexity, its price, and its processed state (raw materials, components, and equipment). However, this table does not show the interrelations (interdependencies) of the independent variables and how the interacting effects result in an increased or decreased amount of additional services.

Here, the case described above gives not only illustrative, but also methodological assistance, because paralleling the broad field research we can use the case as quasi experimental design, due to the conscious isolation of certain influencing factors. With this methodological `trick' we can gain plausibility for our hypothesis, that differences in attribute-space of organizations (its potential) cause effects on the relationship between organizations.

If it is true that the offering of additional services is more a matter of power than of conscious marketing strategy, then our introductory discussions of negotiations gains additional weight.

SECTION 4.3 MARKETING OF EQUIPMENT

An item of equipment is a product used by the customers as a part of their production process. In this section we will discuss some of the key marketing

problems of companies selling equipment and illustrate the discussion with three company cases. The three marketing issues that will be analysed are (a) the supplier's need to have knowledge of an external production process, (b) the low frequency of purchases by each customer and (c) the supplier's credibility.

CHARACTERISTIC MARKETING PROBLEMS AND STRATEGIES

In order to be used effectively by a buyer, the equipment has to fulfil two requirements. Firstly, the equipment has to be designed in a functional way in itself. Secondly, it must be easy to ensure that it is well integrated into customers' production processes, i.e. it must be adapted to fit in with other parts of the production system that normally surround it when it is used. These two requirements together can be said to form the first important issue when designing the marketing strategy of the equipment producer. The supplier has to be an expert in manufacturing processes which are external to his own firm and involve the function of the product and its connections with other products. The supplier has to get very good feed-back from some customers and a frequent condition of success is that the firm must have close co-operation with at least some customers.

The above key issue shows some similarities with the marketing situation applicable to both the raw material and component manufacturer. As for the raw material manufacturer, the important knowledge is concerned with a production process and, as for the component manufacturer, some of the important know-ledge is controlled by customers.

A second issue that is central when designing the marketing strategy for equipment suppliers concerns the low purchasing frequency of customer companies. The two types of companies discussed earlier (raw material and component manufacturers) normally have somewhat continuous relationships with customers in which deliveries occur once or twice a month. This is not the case for the equipment supplier. A problem, therefore, is to maintain customer relationships during those periods of time when there are no purchases. The reasons for keeping up the relationships are several. The most important one is that, by keeping contacts, the seller will be informed earlier about a certain purchase and, therefore, will be in a better position to influence the customer, especially in technical matters. Each purchase is so important that the effects of a lost order are difficult to overcome. Thus, the maintenance activities between the more intensive periods of the relationships can be very important. However, these activities are rather costly and this way of solving the problem can only be used in relation to major customers. As far as all other customers are concerned the supplier has to depend on its information network. To develop such a network takes time and can also be rather costly, especially if it is going to support an internationally oriented firm.

The third issue relates to the credibility of the equipment supplier. Normally, a piece of equipment is in use over a long period of time. Services such as maintenance and stocks of spare parts must be available, not just at the time of purchase, but during the whole lifetime of the product. A new supplier of equip-

ment, therefore, must convince customers that it will continue to be in the market for a long time. It must have credibility in other respects too. The importance of the credibility factor is especially high for equipment suppliers because the consequences of a bad product may often only arise and be detected after a long period of time has elapsed.

At that stage they can be very significant and very difficult to overcome. Considerable supplier credibility is important to ensure that the equipment itself will not fail, but also that the supplier will be able to solve any problems which arise. Long-term technical problem-solving and after-sales service facilities are important features of supplier credibility as perceived by customers. As also applied to manufacturers of raw materials and components we can conclude that the need for credibility makes it time consuming and costly for equipment suppliers to become established and thereafter maintain a stable position in a market.

The three issues discussed above, the knowledge of an external production process, the maintenance of relationships between purchases and supplier credibility are all important features to consider when designing the marketing strategy of a manufacturer of equipment. Before discussing this matter further it is useful to briefly consider conceivable purchasing strategies.

When doing so it is important to notice that purchases of equipment normally are treated in a different way as compared with purchases of raw material and components. This is especially true for major items of equipment and complete systems. These are often purchased by a project group consisting mainly of engineers and technical staff. The purchasing processes are by no means as routinized as they are for purchases of raw materials or components. Projects and equipment purchases are more irregular, each transaction is very important and different people in both the supplier and customer companies may be involved in the transaction and maintenance stages of the relationship.

The buying customer can use the supplier in different ways. As discussed earlier, two basically different strategies can be identified. These are:

(i) First, the customer seeks an external expert that can help it to improve its production processes. The customer wishes to establish a very close relationship with the expert supplier and is prepared to let the supplier get all the information it needs. Thus, the customer does not just want a product, it wants advice, technical information, technical co-operation, and joint development. It is concerned with using the supplier's expertise to reduce costs, improve output or manufacture new items. When using this strategy the customer is interested in the benefits it derives from the relationship and is pre-pared to pay extra for them.

(ii) Second, the suppliers can also be used in quite a different way by the customer. They can be used to deliver already well proven and tested standard equipment. Even so, the customer has a need for services, but these are mostly of a more limited and specific nature than in (i) above. The customer's interest, when applying this second strategy, is focused on the direct and

indirect costs of the relationship while the other benefits of it are considered to be the same for all suppliers.

Two basic marketing strategies of equipment manufacturers can now be discussed. Using the first type of strategy the supplier tries to act as a problem solver and innovator. Normally, this means that the firm has a small number of rather special customers with which it has very close relationships. Custom-built products characterize this strategy. This strategy corresponds with the first purchasing strategy above. The second type of marketing strategy is characterized by production of standardized items of equipment to rather large segments of customers. Large-scale production is a condition for a manufacturer using this type of strategy in order to be competitive. This can only be achieved by an effective distribution and service organization.

Again, we can see that the different marketing strategies impose quite different requirements on the supplier's technical and organizational design. The marketing strategy, in other words, must be in accordance both with what chosen customers want and with the supplier's technical and organizational features.

Three company cases will now be presented to illustrate various marketing situations of this type of firm. The first of the cases describes a firm marketing a product which is used by some customers as a component and by others as a piece of capital equipment. This type of marketing situation is becoming more usual as system selling and turnkey projects increase in numbers. (This case can be compared with the company case `Mekanik and Motor' in the earlier section about marketing of components.) The three cases will now be briefly summarized:

Unifix This case describes how an English firm markets a large complex product to the marine and the electric power industries. The customers in the first of these two industries use the product as a major component to be incorporated into a ship. The importance of the customers' own customers in the supplier—customer relationship is again exemplified. The role of the supplier's world-wide selling agents and service network is emphasized as a vital aspect of interaction. In relation to the customers in the electric power industry one very close and special relationship is discussed. This is clearly a situation where both the buying and the selling parties have found a close co-operation to be beneficial. The case illustrates the large resources which a new relationship requires and thereby accounts for the unwillingness of the supplier to react to a customer's invitation for technical collaboration when these are not perceived to be serious.

Svensk Processteknik In this case study, a Swedish firm is using the first of the two basic types of marketing strategies. It tries to be an innovator and a world leader within its special area. The case shows, among other things, the need for having very close relationships with some customers in order to be able to market the product to others. A very close domestic relationship is used in one situation for a test run and in another situation to train personnel of a foreign customer.

Mecamine The third company case is about a French firm producing capital goods used in quarrying and mining work for extracting materials. Together with its closest domestic customer it developed a new process twenty years ago. The co-operation has continued long after this event and the relationship is one of those very close ones where both companies try to use the other's resources as much as possible. This relationship is contrasted in this case study with another relationship where the purchasing firm clearly has a different objective. The customer is using the second purchasing strategy discussed above and the relationship has thus not developed in anything like the same way as the first one.

UNIFIX LTD. — A Supplier of large Components to the Marine Industry and the Electric Power Generation Industry

Elling Homse

INTRODUCTION

The principal aim of this case is to illustrate and examine some of the circumstances which determine the supplier's decision whether to allocate a large amount of his resources in terms of people, engineering facilities, production capacity, finance, etc., to a particular existing or potential customer.

The case also provides illustrations of customer relationships which have been developed over a long period and subjected to considerable investments in terms of personal relationships, special adaptations, and other services, and demonstrate how these relationships are very resistant to different kinds of external influences seeking to weaken or discontinue their existance.

THE COMPANY — UNIFIX LTD.

Unifix is an old established engineering company with a long history of world-wide sales, particularly to Commonwealth countries and Third World markets. The Company is part of a large UK based group where several associated companies manufacture products complementary to the Company's product.

Unifix has several manufacturing plants in the United Kingdom. Its head-quarters and main manufacturing site is located in Scotland. Total Company turnover is in excess of £50 million and it employs approximately 7000 people.

Organization

Company turnover is split between several divisions which market the same product to different customer industries. The largest of these divisions supplies the ship-building industry, (hereinafter called the marine division), a smaller division supplies the industrial electric power generation industry, (hereinafter called the industrial division). Each of these two divisions have their own marketing depart-ments with separate functions for sales, tendering, contracts (engineering

services), and after-sales service. For all intents and purposes, the two divisions discussed here operate as autonomous companies with shared manufacturing facilities and certain common central services, such as research and development, finance, and personnel.

Sales and Distribution

Both divisions use UK resident sales representatives to perform the main selling and marketing tasks world-wide. Each of the six to ten representatives in each division cover a geographical area of the world, which is judged to be fairly homogeneous in terms of language and/or culture. There is considerable overlap between sales territories however, as one particular order may involve a con-tractor, consultant, owner, and operator each based in different countries. If, for example, a UK shipowner placed an order with a German shipyard, the UK representative would probably deal with the German yard, particularly if the shipowner, rather than the yard, was the most influential party to the sourcing decision.

Both divisions also use an extensive network of agents in overseas countries. Agents are almost exclusively appointed on the basis of their political and industrial contacts and their reputation in the customer industries.

Some agents also act as service agents. The agents' main task is finding out `who is building what for whom' and make sure that Unifix is given an opportunity to quote. In most cases the relationship with the potential customer is thereafter handled directly by a UK based representative.

The marine division also employs an Italian national resident in Italy to co-ordinate the activities of several Italian agents. The industrial division employs a French national resident in France who acts as the division's agent in France, Holland, and Belgium. The main functions of the overseas resident representatives are, as with overseas agents, market intelligence and obtaining initial inquiries rather than selling. Agents and overseas based representatives were quite aptly described by one manager as `listening posts' in the market.

The two divisions rarely use the same agents, because someone who is well connected in one customer industry is unlikely to have close contacts in the other.

In the past, the group of companies to which Unifix belongs used to have resident representatives in most territories. This practice has been discontinued for two reasons. Firstly, because of the increased cost of maintaining overseas representatives, and secondly, because the representatives were not able to deal satisfactorily with a wide range of products to a number of customer industries.

The **Product**

Unifix Limited manufacture and sell one basic product which varies only in the size dimension. The unit price of the product varies between £50,000 and £500,000 depending on size, and approximately 200 units are manufactured per annum.

The product is very complex to design and manufacture, and because of this it

is not amenable to alterations or special adaptations to specific customers' requirements.

The product is often supplied by the manufacturer as part of a large sub-assembly which may have a total value of up to three times the value of the product itself. The sub-assembly includes equipment which is auxiliary to the product and is bought elsewhere by the supplier, usually to customer's specifications.

The Market

The marine industry and the industrial electric power generation industry in Europe have two important common characteristics; firstly, a very high degree of loyalty exists to domestic suppliers. It was thought to be very difficult to sell to a French, German, or Swedish customer a product which is also manufactured by a domestic supplier, except when the end-user customer is situated in a third country.

Secondly, both industries are very effectively protected by non-tariff barriers, mainly loans and subsidies which often contravene EEC regulations for free competition between member states.

Competition

The industry in which Unifix operates is characterized by a high level of concentration. It was claimed that for every potential order there would only be five or six competitors in the world capable of meeting the specifications. The main element of competition is the ability to provide quick service in any part of the world, and particularly along the major selling routes. In terms of price, delivery lead time, and product quality, there is little difference between competitors.

As a result of the oil crisis of 1973 and the present world-wide recession, competition has become very much fiercer, and there has also been a swing from the declining marine market to industrial power generation applications.

Market Potential in France, Germany, Italy, and Sweden

Due to the high degree of loyalty to domestic suppliers and the non-tariff barriers that exist, neither the industrial nor the marine division expect to be able to obtain many future orders for products to be used in France, Germany, or Sweden. The prospects for sales to end-users in Italy are much better because the domestic Italian industry is not able to meet the requirements of the domestic market.

As far as the industrial division is concerned, France and Germany do represent a considerable potential as `throughput' markets however, that is when the end-user of the product is located in a third country, usually a developing or non-Western world country. Unifix benefits in this respect from its extensive involvement with Commonwealth and Third World countries who may well use a French or German contractor.

As far as the marine division is concerned, any sales to France, Germany, or Sweden would almost invariably result from a UK shipowner placing a contract to build a ship in one of these countries, something which is in itself not likely to be a very frequent occurrence.

SOME ASPECTS OF THE COMPANY'S MARKETING STRATEGY

One of the major elements of the strategy of both divisions is a widespread and well informed network of agents in all parts of the world where ships or electric power plants are built or used, including countries which have a large consultancy industry. In order to be successful, the Company needs to become involved with owners, contractors, consultants, and end-users from the time when a project is first contemplated.

When a firm enquiry has been received, it is evaluated firstly in terms of the suitability of the supplier's product, secondly, with respect to the probability of obtaining the order, and thirdly, the potential customer is assessed for its potential as a future customer, or his significance as a first customer located in a potentially promising territory.

Having decided to seriously tender for a contract, the customer is `cornered at every angle' by means of personal contact with all involved parties. A UK based sales representative is responsible for the selling task up to the point of securing the contract, at which time responsibility is passed to the contracts department which may continue technical discussions and see to it that the product is delivered on time and installed satisfactorily. In the case of technically complex contracts, the contracts department will be involved with the customer at the negotiation stage as well as after the order has been placed.

SUPPLIER–CUSTOMER RELATIONSHIPS

Elverket A/B – A Potential Swedish Customer

Elverket A/B is one of Sweden's largest electric power producers, supplying electricity for domestic and industrial use to several of Sweden's largest cities and large rural areas. The Company is wholly government owned.

Several schemes are in operation in Sweden whereby the waste heat from electric power plants is used for domestic central heating. Elverket A/B has employed a Swedish firm of consultants to undertake a feasibility study of various methods of electric power generation using the waste heat for central heating schemes.

Unifix was approached directly by the firm of consultants three years ago. The inquiry was in respect of a small electric power plant using Unifix's product. The value of the order would be in the region of £ 1 million and, if successful, the potential requirements of further and larger schemes would, on its own, far exceed Unifix's total output.

A number of technical questions would have to be resolved before Unifix could

be given the order. Most of the difficulties were associated with the extraction of waste heat from Unifix's product, something which apparently had never been successfully done on a large scale before. If these technical difficulties were successfully resolved, and the power plant proved to be a commercial success using Unifix's product, the Company would be party to a significant technological development with large potential world-wide.

All discussions between Unifix, Elverket A/B, and the consultants have been concerned with technical matters. The only person from Unifix directly involved in these discussions is the sales representative who is responsible for the home market and Scandinavia. During the three years since contact was established, he has made three visits to Sweden. Representatives from Elverket A/B and the consultants have visited the UK supplier on one occasion. Unifix's Swedish agent has been involved only to a very limited extent. It is significant that there has been no direct personal contact between Unifix's projects department and the Swedish customer or consultants. The projects department's involvement has been con-fined to sending specifically requested technical information to Sweden, and on one occasion, Unifix refused to disclose to the potential customer certain technical details.

Quite clearly, Unifix Limited, has not made a serious effort to obtain this order in spite of a shortage of orders from traditional markets due to the world-wide economic recession and in particular the decline of the ship-building industry following the oil crisis.

There seem to be two reasons for this lack of interest. Firstly, Unifix has right from the start of the relationship seriously doubted whether the Swedish customer had any intention of actually placing the order with Unifix. It would be contrary to all past experience that a Swedish government owned company would use a foreign supplier when the same product is available from a domestic source. Unifix suspects that the customer is merely `picking their brains' for them to pass this information on to the domestic supplier. Secondly, Unifix management suspects that even if their product was accepted by the customer, manufacturing capacity would not be sufficient to make them a serious contender for future large volume orders should the project be a success.

Had Unifix decided to make every effort to obtain the order, a considerable investment of resources would have been called for. In particular, the projects department would have to give high priority to solving the technical problems involved, showing enthusiasm and initiative rather than just responding to requests for information. Projects engineers would also have to be personally involved with the customer, visiting the consultants and the customer together with the sales representative at least every three months to discuss technical matters and to demonstrate the serious intentions of the company.

In summary, this relationship illustrates how the supplier evaluates the likelihood of actually obtaining an order against the amount of resource investment required in order to be able to fulfil the order and to demonstrate to the customer the intention to do so. The potential customer's failure to demonstrate a serious intention to award the contract to the supplier may be seen as initiating a

process whereby both parties further lose confidence in each other's intentions to bring the relationship to fruition in terms of a successful business relationship.

Elektroverk A/G – A German Capital Plant Construction Company

The government of an African country, previously a British colony, had approached a British capital plant construction company with a view to placing an order for a chemical process plant. This company regularly used Unifix as a supplier of parts of emergency electric power generation sets. After having done a considerable amount of work on the specifications for the process plant, the British company realized that the task was too large and complex for their expertise and capacity. They, therefore, passed the enquiry, as well as all the work done on the project, to Elektroverk A/G a larger German firm of capital plant constructors. Included in the partly completed specifications for the plant was Unifix's product. Elektroverk A/G used one of Unifix's German competitors as a regular supplier, but decided, on this occasion, to buy from Unifix instead. There were probably several reasons for this. Firstly, the design work already done by the British company which passed the inquiry on to Elektroverk, incorporated Unifix's product. A change to the regular German supplier's product would have entailed design modifications. Secondly, Unifix had a long history of sales to the African customer country, which meant that servicing and spares would be less of a problem. Thirdly, Unifix management suspected that the German customer wanted to demonstrate to his regular supplier that he should not take it for granted that Elektroverk would place all its business with him rather than any of his competitors.

For Unifix's industrial division, this was the first order obtained from Germany in more than 10 years, and it was hoped it might provide an entry in to the large German plant contractor market. When the inquiry was received, therefore, a Unifix sales representative went immediately to see the customer, bringing with him a tender for the order. A visit was made by the sales representative a few months later at which time the final commercial negotiations were completed and a firm order obtained.

Unifix's German agent was involved in the negotiations, but his presence was thought to be of little significance. Elektroverk A/G was found to show very little interest in Unifix as a supplier or in the product offered. The attitude was by no means unfriendly, but the company was clearly not making any efforts to establish a closer and long-term relationship with Unifix. This lack of interest in the supplier seems to suggest that the customer does not expect Unifix to become a regular supplier or to be able to break into the German market.

In a further attempt to obtain the goodwill of Elektroverk A/G, Unifix readily agreed to a shorter than usual delivery time, extended credit terms, extended warranty period, and a severe penalty clause.

This relationship illustrates a situation where the actual selling task was simple mainly for extraneous reasons, and very little technical or commercial activity took place prior to sale in order to establish confidence between supplier and

customer. In most circumstances, a successfully fulfilled contract would provide the supplier with an opportunity to broaden his contacts with the customer and establish further personal relationships between the two companies in anticipation, of future orders. In this case however, the supplier found the customer showing, very little interest in establishing a long-term relationship. In order to try and over come this barrier of disinterest, Unifix made sacrifices in terms of credit and terms; of agreement, and will continue to call on the customer and in any possible way; try to demonstrate a serious intention and desire to become a regular and competitive supplier to the customer, hoping also that if this was to happen, **a** precedence would be set for other German customers in the same industry.

Shiffsverft A/G — A German Ship-builder

Unifix Limited, received an inquiry from an Irish shipyard for its product to suit a ship of certain specifications. The shipyard did not state for which owner the vessel was to be built. This is not unusual in the marine industry as the ship-builders generally prefer to negotiate with suppliers without invervention by the final customer.

Unifix asked all its agents in Europe and the UK to try and find out which shipowner was planning to extend his fleet with a vessel of the given specifications, and also to find out which other shipyards were tendering for the same order. The owner was found to be an Irish company and it was also established that a German ship-builder was tendering very competitively for the contract. By contacting the owner through Unifix's Irish agent, it was determined that the ship would be built by Shiffsverft of Germany who, due to a temporary shortage of work, were tendering at a price which was probably less than cost.

Unifix was then faced with a dual selling situation. The order could be secured either by the German yard finding the supplier's product preferable to that of German competitors, something which was not likely to be the case given the loyalty to domestic suppliers generally exhibited by German ship-builders, or the order could be secured by persuading the Irish owner to specify Unifix as a sub-contractor.

Unifix decided to concentrate its selling effort on the shipowner, not only because of the greater likelihood of success in this particular case, but also because of the much greater potential for repeat orders. The shipowner had not previously used Unifix's product and his confidence in the product was rather low as he had heard of technical difficulties experienced by one or two customers.

Several visits were made by one of the suppliers' sales representatives together with the Irish agent. Substantial concessions were made directly to the owner in terms of an extended guarantee period and a considerable credit entry on the owner's spare parts account with Unifix. In return, a strong recommendation was made to the German shipyard by the Irish owner to use Unifix's product. This recommendation was accepted by the yard and the contract was finally secured by the UK representative visiting the German company together with the German

agent to reach an agreement on technical specifications and commercial issues such as price and delivery.

Several observations may be made from this illustration. Firstly, it would seem improbable that the supplier would have been given the opportunity to tender for the contract had it not been able to rely on a network of agents well connected with the marine industry and thus being able to identify the German shipyard bidding for the contract.

Secondly, again due to the agency network, the shipowner was identified and only by approaching him direct was a successful tender for the contract made possible.

Thirdly, financial and human resources were made available to establish a close business relationship with the shipowner, not only with a view to obtaining the specific order, but also as a result of expected future business. No special effort was made to establish a long-term relationship with the shipyard nor were any special financial concessions made as the probability of obtaining future orders was considered to be negligible.

British Engineering Limited – A Large UK Group of Engineering Companies

British Engineering Limited is Unifix's largest single customer, and Unifix supplies approximately 80 per cent of the customer's requirements. The two companies have been doing business with each other for more than thirty years and for most of this time Unifix has enjoyed a very large share of British Engineering's business.

British Engineering is a wholly government owned company and has about a dozen subsidiary companies in the UK all manufacturing a limited range of highly specialized equipment. Because of the nature of the manufacturing process, each plant requires an emergency source of electric power. Unifix's product is a crucial part of an emergency electric power generating set, and the product is usually supplied as part of a complete generating set where equipment representing approximately 60 per cent of the total cost is obtained by Unifix from sub-contractors.

A very broad and close relationship has developed over the years between Unifix and British Engineering. One of Unifix's senior sales executives deals with this customer full time and several UK representatives are involved with the subsidiary companies. A large amount of work is also performed by Unifix's con-tracts and services departments. Each of the subsidiary companies are visited about every 2 weeks in order to maintain close personal contact and to discuss problems relating to equipment being installed, questions of maintenance and service of existing installations, as well as details of potential future orders. A special commercial and technical meeting is held every month with personnel at the customer's head office reviewing all present and potential contracts. Being a major supplier, Unifix is also involved in technical problem-solving and developing specifications for proposed installations.

British Engineering operates a very formalized system of supplier approval and purchasing decision-making. Any company wishing to become a supplier is carefully vetted in terms of product quality, engineering skills, financial resources, etc. Once approved, the supplier is put on a shortlist from which all British, Engineering companies must choose their suppliers. Having become an approved; supplier, the company's performance is continually monitored in terms of, delivery, service, product performance, etc. If, at any time, a supplier is found notl to meet the customer's strict performance requirements, it is likely to be struck off the approved suppliers list until it is able to demonstrate the action has been taken, which will improve the company's performance in the area which gave rise to the complaint.

All approved suppliers are invited to tender for every new contract. A tender when submitted must be in the form of a firm quotation and no opportunity is, given to alter the offer after the tendering closing date. The supplier choice, guidelines state that the order must be given to the company offering the lowest; price, unless there are good reasons why this should not be done.

The customer's very formalized procedures for supplier evaluation and selection must be seen in the context of a changing climate, particularly in the publics sector, whereby increasing concern is being expressed at the ways in which suppliers have been able to influence the customer's decision-making process.

number of cases have been revealed over the past few years where large publicly owned companies or companies selling to the public sector have been found to used unacceptable and sometimes illegal means of influencing decision-makers.

As a result of this, the Government appears to have imposed on British Engineering and other publicly owned companies certain clear and explicit guidelines as to the criteria upon which the supplier choice decision should b based.

In view of the fact that the supplier choice decision is largely based on a certain minimum level of performance (which keeps the supplier on the approved suppliers list) and price, it is perhaps surprising at first that Unifix is prepared to commit such a large amount of resources to this particular customer. There are, four possible reasons why it would seem advantageous to Unifix to maintain this high level of investment and further develop its relationship with British Engineering. Firstly, since the Government imposed directives for supplier choice limits the authority and discretion of the buyer, he is not likely to be inclined to adhere strictly to these rules. As the buyer who has in the past applied less tangible decision criteria such as personal confidence in the suppliers' ability and willingness to meet customer requirements, likes or dislikes for supplier personnel, ease of communications, supplier's interest in customer problems, his problem solving ability, and so forth, he is likely to continue to emphasize these characteristics rather than operate strictly in accordance with formal decision procedures.

A second reason why such large resources are being put into maintaining a close relationship with British Engineering might well be an expectation that the present over-emphasis on formalized supplier selection procedures will diminish as

the memories of recent corruption scandals become more distant. The present high level of activity can thus be seen as maintaining considerable investment over many years in developing a close relationship characterized by trust, confidence, informa[l] procedures, and a high degree of customer loyalty, hoping that less specific but just as valid and by no means inappropriate decision criteria may again become dominant.

A third reason for maintaining a close relationship with the customer would be to obtain quick and immediate feedback on performance so that any complaints can be dealt with quickly and informally and thus maintain a good rating and avoid being struck off the approved suppliers list.

Fourthly, Unifix's involvement with engineering and design matters benefits not only the customer. Any research and development done in collaboration with one of the country's largest users of standby generating sets is likely to provide valuable user information and experience which should improve the supplier's competitiveness with other customers.

United Shipowners Ltd. – A UK Marine Customer

United Shipowners Ltd. is one of Unifix's long established regular customers. During the past twenty years, a very close personal relationship has developed between the two companies and business has been based on trust and `gentlemen's agreements'. For example, when planning a new ship, the superintendent engineer of United Shipowners, who is the person who generally decides which supplier to use, would approach Unifix, and a meeting would be arranged between the superintendent engineer and one or two representatives from Unifix. Commercial and technical details would be discussed and decided, and the order, sometimes for products worth several hundred thousand pounds, would be placed verbally and Unifix would start manufacturing the products. Several months could then elapse before the formalities of signing a purchase contract were carried out. Because of the close and trusting relationship and the fact that the customer had always received very good before- and after-sales service, Unifix would always be chosen as a supplier in spite of the fact that competitor's products were often 10–15 per cent cheaper.

United Shipowners was then taken over by a larger company which had regularly used the products supplied by one of Unifix's main domestic competitors.

United Shipowners realized that they would have to fight the parent company in order to be allowed to continue using Unifix as their regular supplier rather than changing to the parent company's preferred supplier. When the first new build of a ship after takeover was contemplated, Unifix and United Shipowners' senior [m]anagement met to jointly work out a strategy to `sell' Unifix's product to the holding company, not expecting that the parent company would change from its regular supplier, but hoping that the parent company would agree to allow United [S]hipowners to continue using Unifix as a regular supplier. United Shipowners'

superintendent engineer was supplied with large amounts of detailed information about Unifix's product to his own company. He also supplied Unifix's management with all commercial and technical details of the offer from the competitive supplier. Unifix's sales manager also met with the managing director of the parent company on several occasions supporting the arguments of the superintendent engineer and particularly supporting the arguments of the superintendent engineer and particularly pointing out the excellent service which had always been given to United Shipowners in the past.

An apparent difference in purchasing philosophy between United Shipowners and the holding company turned out to be of crucial importance. United Ship-owner's management was largely engineering based and purchasing decisions were always made with emphasis on the long-term costs and benefits. This was why the Company had always been prepared to pay the relatively high initial price for Unifix's product, knowing that the excellent service during the life of the product would more than make up for the high initial price. As reported by United Shipowners' management, the holding company placed a much greater emphasis on the short-term cash flow situation rather than long-term considerations. This philosophy can be attributed to the fact that the holding company was run by `accountants and lawyers with little appreciation for engineering and the questions of service and maintenance'.

In the final analysis, therefore, the parent company's decision was seen to depend on Unifix reducing its price. A considerable price concession was made by Unifix making the offer compatible with that of the holding company's preferred supplier and thus securing the order.

This illustration gives a clear indication of the tremendous loyalty to a supplier which has proved itself over a long period of time to be reliable, trustworthy, and prepared to give excellent service to a regular and valued customer. The mutual trust established between Unifix's and United Shipowners' personnel had also allowed the two companies to deal efficiently with each other without formalized and time-consuming procedures.

From Unifix's point of view, the loss of its customer would mean that no further benefits could be obtained from an extensive investment in good service and the establishing of close personal contacts.

SUMMARY AND CONCLUSIONS

The discussion of Unifix's relationship with five quite different customers illustrates a number of points relating to the Company's approach for dealing with existing and potential customers.

In the case of the Swedish company Elverket A/B, Unifix decided not to become heavily involved, which would have entailed committing a great deal of research and development resources. The reason for this was mainly a lack of confidence in the potential customer's serious intentions of actually purchasing from Unifix once the necessary research and development work had been done. It was also suspected that the customer would pass on technical information and the

results from further technical developments to one of Unifix's Swedish competitors.

In the case of the German customer Elektroverk A/G, the potential for future business was seen to be considerable, in particular since the Company does a large amount of business for end-user customers who are traditionally favourably disposed towards British suppliers. Electroverk A/G was seen to be important not only in terms of potential business arising from this particular company, but also because it might provide an introduction to the large German capital plant construction industry. Considerable resources were `invested' in this customer, not only in terms of personal visits, but also by way of financial concessions.

The importance of a broad and well connected agency network was clearly demonstrated in the case of the other German customer, Shiffsverft A/G. Without the agent's close personal contacts in the customer industry, it is unlikely that Unifix would even have been given an opportunity to tender for the contract. Likewise, it is unlikely that the identity of the shipowner placing the order with the yard would have been established was it not for the ability of the agent to find out through personal and informal means. The Shiffsverft case also demonstrates clearly a resource investment decision, whereby considerable efforts were made and financial concessions given in order to establish confidence with the ship-owner and thus increase the possibility of securing future business. Hardly any efforts were made with a view to establishing a close relationship with the German shipyard which was the actual customer in this case, as the likelihood of obtaining orders in the future was seen to be negligible.

In the illustration involving a long established and loyal UK customer, British Engineering Ltd., the close relationship between the two companies is maintained and developed further in spite of outside influences restricting the customer's discretion to choose Unifix as a supplier. Apart from the fact that these regulations, which were largely Government imposed, probably not being strictly adhered to, the relationship between the two companies demonstrates two other reasons why a supplier would wish to maintain a high level of involvement.

Firstly, because close personal contacts provide a means of informal and quick performance feedback, this enables the supplier to take corrective action before serious problems occur. Secondly, close technical co-operation provides the supplier with extended facilities for developing and testing his product and thereby helping him to develop and respond to customer requirements.

The strength and value of close relationships including a high degree of confidence, trust, service, and general commitments, was also clearly demonstrated in the case of United Shipowners Ltd., where the key personal contact in the customer company effectively changed sides and virtually sold the product to his own company on the supplier's behalf in the face of a threat to break up the long standing and mutually satisfactory relationship.

In summary, the discussion of Unifix's relationship with some of its existing and potential customers illustrates how the supplier needs to consider the short-and long-term costs and benefits of allocating human, technical, and financial resources to particular customer relationships. Unifix Ltd. practices, in part at

least, a process of differential attention to customers which is sometimes referred to as customer portfolio management. As part of a marketing strategy, customer portfolio management seeks to provide the supplier with a balance of customer. who may serve as either technical development customers (such as British Engineering Ltd.), loyal volume purchasers (such as United Shipowners Ltd.) `reference point' customers indicating the supplier's presence in a new marker (such as Elektroverk A/G), and so forth.

The Company discussed in this case does not, however, practice customer portfolio management as an explicit decision-making process, using clearly defined decision-making criteria.

It was also clearly demonstrated by the relationship with Elektroverk A/G that the supplier is often not in a position to decide unilaterally on the extent of involvement with a particular customer company. The customer is himself usually} an active partner in the relationship and a corresponding process of supplier portfolio management is likely to be practiced much more explicitly in purchasing companies.

SVENSK PROCESSTEKNIK — A Case about Marketing of Equipment to the Process Industry

Jan Johanson

INTRODUCTION

In this case two customer relationships of a Swedish process equipment manufacturer are described and discussed. The first one concerns an Italian customer and the exchange episodes in focus deal with a purchase of a few machines. The second customer is a German company who bought a whole plan Before presenting the specific features of the case some general characteristics of relationships involving buying and selling of equipment will be discussed.

Obviously, the character of relationships between suppliers and users of equipment are likely to be very different from those between components or materials suppliers and users. Whereas the latter usually have a rather stable structure, so that interaction patterns do not vary much over time, the former vary considerably in intensity and structure. The difference may be explained by the differences in regularity and frequency of the need of the user. Naturally, there are machines which are bought fairly regularly, for instance once per year, just there are components which are needed and purchased seldom and at irregular intervals. Nevertheless, in analysing relationships surrounding purchases and sales. of equipment, it is necessary to take into account the lack of frequency an· regularity of the user's need. It might even be argued that the concept of buyer—seller relationship is not particularly useful — it is rather a question of single and discrete buying processes. In particular, this is the case with one-off purchases, whether they concern single purchases of machines or acquisitions of new plants.

On the other hand, it may be argued, and it is done here, that the concept of interactive relationships is useful even in those cases, because it refers to the existence of stable structures involving supplying and using companies, which influence the way the business activities are carried out and the result of them.

It is typical for `equipment relationships' to have discrete business transactions. They follow each other at long and irregular intervals. During an ordinary transaction a number of different problems are dealt with. These may refer to technical questions, commercial questions, or questions of delivery or training. The relative importance and the order in which they are handled, may depend on a number of different factors, such as the size of the transaction, the fit between supplier's ability and customer's need and also the age and structure of the relationship. The important thing here is that different questions make different demands on the interaction between the two parties and they are often handled in a number of episodes. During some episodes it might be required that fairly un-structured information is exchanged; on other occasions very detailed and well structured information must be exchanged. Different functions of the firm must also take part in different interaction episodes at different times. To carry through a transaction successfully requires that the supplier is able to move through a number of episodes from problem to problem together with the user and to handle the different types of exchange. Furthermore, very often during those episodes other parties such as consultants and sub-contractors are involved.

The possibility of carrying through a transaction is very much dependent on the existence of a relationship which can be activated and which constitutes a base for the interaction. During the development phase, such a relationship is initiated and encouraged.

If there has been business between the two parties before, then the time between the transactions can be considered as a `maintenance phase'. Generally, the maintenance phase is characterized by low interaction intensity and a stable interaction structure. Social exchange is very important and its function is to maintain the confidence of the parties in each other. The objective of information exchange is mainly to keep each other informed about the development of abilities and needs. If business exchange of products or services for money takes place it has principally a maintenance function. At least from the supplier's point of view the supply of spares and services primarily aims at maintaining the relationship.

The aim of the development phase is very much the same as that for the maintenance phase with the difference that it is not based on any relationship already established. In general, we can assume that a successful development phase requires more intensive interaction.

A critical question from a marketing point of view is the activation of the relationship. The activation may be a direct result of activities by the selling firm:it may as well be the result of activities by the buying firm. From a marketing Point of view it is important that the relationship is activated in an early stage of a possible transaction, that plans and problems which might lead to purchases really are communicated to the supplier and that they are prepared to act in such situations.

THE COMPANY — SVENSK PROCESSTEKNIK AB

Svensk Processteknik is a Swedish company which designs, manufactures and markets machinery for a chemical process. It is a rather small company, the sales value is around 100m kr (equivalent to £ 12m) and it has grown very slowly during the last five years. About one third of the sales is in the form of sales of machines; the other two thirds consists of plants that are designed from complete systems of machines.

The Company has been built on the technical innovations of the founder. To start with, it was almost a consulting firm which designed production processes for a process industry. They designed some machine types which were manufactured by a sub-contractor. Currently, Processteknik has a manufacturing, plant of its own, where it manufactures a whole line of machines for the process industry. Even now the emphasis of the Company's activities is on the design and sales of whole plants, which distinguishes the Company from its competitors.

Processteknik considers itself — and is considered by others — as an innovator. and a world leader in its special field. About ten years ago it developed a new and very competitive process which is used in an increasing number of the new plants. that are built and also to complement a large number of old plants. Competitors have followed suit and the technical lead is diminishing. Competition comes from two American companies and three Scandinavian. In particular, it is getting more and more difficult to compete on the machine market. Processteknik's individual: machines are expensive, but on the plant market Processteknik is more competitive. The Company's involvement in supplying complete plants is an advantage on the machine market too. Customers usually come back with machine orders to Processteknik as the machines are good and the customers want to continue wit machines from the same supplier.

In its special field Processteknik has designed almost half of the plants which have been ordered in the world so far. In the more general field it has a much smaller market share.

Organizationally, the Company consists of three units, a development unit' which develops new processes and machines, a manufacturing unit, and a marketing unit.

The marketing unit is organized in four departments, a sales department, a project department, a service department, and a marketing service department.

The sales department consists of a sales manager, his assistant, and three sales . engineers. One of them is responsible for sales in the Latin European countries, the Benelux countries and North Africa, another is responsible for Finland, the East European countries, Turkey, and Greece, and the last one is responsible for . Norway, UK, Western Germany, and South Africa. The sales manager handles all other markets except America and Far East which are handled by separate sister companies in US and Japan..

The project department designs the plants and has specialists on processing, construction, electricity, and instrumentation. For each project a project group is formed. Besides the specialists such a project group contains a project manager,

who might come from the sales department, and a co-ordinator. The design capacity of the project department corresponds to 5—6 middle sized plants per year.

The organization abroad consists of a number of agents. They have mainly a maintenance function, are responsible for current customer contacts and for machine service. All negotiations — technical and commercial — are carried out by the Swedish organization. The companies in US and Japan are exceptions, they correspond to the marketing unit in Sweden.

The Italian Customer — Italian Chemical Products (ICP)

In Italy there has been a rapid structural change within this branch of the chemical industry in recent years, resulting in a strong concentration of industry. The market has been very difficult to deal with, because it has been affected by the bad economic situation. Import restrictions have played an important role and high level contacts are needed to deal with them.

The biggest supplier to this market is consequently a subsidiary of a US competitor, which has a market share of around 50 per cent. Processteknik's share is about 25 per cent.

The Italian customer has emerged as a result of the concentration process in the industry. It is a big group with several plants, 10,000 employees and a sales value of 1000m kr (1120m). It is domestic market oriented and was characterized as `a typical Italian company with rather high technical competence and difficult to negotiate with'.

ICP purchased machinery for a process other than Processteknik's specialty and it was for a few machines only. Processteknik is not the sole supplier of such machines to ICP; for instance, for another plant the customer bought machines from one of the competitors. However, for this particular mill, Processteknik was the sole supplier. The total value of the order was about 1m kr (£120,000) which is about 35 per cent of Processteknik's Italian sales.

ICP has bought machines from Processteknik once before; it was in the middle of the 1960s. The present sale was not directly related to the earlier business, but the old machines acted as a good reference for future business. In general the customer has confidence in Scandinavian suppliers. This episode was the direct consequence of a sales campaign in Italy, in which Processteknik contacted the customer.

The most important characteristics of the product are availability, reliability, and service. Standstill costs are around 15,000—20,000 kr per hour (£2000—3000). Delivery time is also very important in Italy, because Italian customers make late decisions and every day before start-up of the machinery costs money.

The customer's final product is not adapted to Processteknik's machines, though the processes are adapted to some — albeit a very limited - extent as Processteknik's machines are in the middle of the manufacturing process and some adaptations have been made in the couplings between the stages of

manufacture. Processteknik has not made any modifications to their machines, but they have used their standard machines for a system which is tailored to meet the customer's need. Besides the product, Processteknik offered this customer instruction for their personnel and a maintenance service, and additionally gave a specific technical seminar for this mill. This is the standard procedure when the customer's competence is thought to be too low.

The activating contacts were made by the sales manager's assistant together with the agent, in a sales campaign in Italy. Three men from Processteknik and thirteen from ICP have had contact with each other during the episode. On the part of Processteknik the sales manager's assistant negotiated the deal and two service specialists had contacts for instruction and service. On the part of the customer, the technical director was the decision-maker and specialist on economic—technical matters. The local manager participated in technical discussions and the purchasing manager of the group discussed some legal aspects of the contract. Besides those contacts the operating and maintenance personnel took part in the seminar and had some service contacts. The salesman who negotiated the deal also had discussions about this customer inside Processteknik. The general management of the supplier decided whether or not to make an offer to the customer, the project department carried out some design work underlying the offer, and the laboratory gave some technical advice. The total number of inter-country visits during this episode was four in Italy and two in Sweden. The deal took two years.

The German Customer — Deutsche Spezial Chemicalien (DSC)

This relationship started in 1966 with sales of a few single machines. Together with the agent, a Swedish sales engineer visited the customer. After some time they got a request for a machine offer. First one machine was bought and some years later another two machines. There were also discussions about a reconstruction of one of the customer's other plants.

The present transaction developed because the customer bought raw material from a Swedish supplier to whom Processteknik had delivered the manufacturing plant. DSC was very dissatisfied with the quality of the deliveries and had made a number of complaints. Processteknik called the two parties to a meeting in order to bring about an improvement in the quality. Processteknik considered that the supplier did not handle the production process properly. In order to demonstrate that it was possible to make the material with good quality in the supplier's plant, Processteknik produced material there for three days for DSC. DSC was very satisfied with this demonstration and after a month's analyses they came back and requested an offer for a suitable plant. During the discussions Processteknik also had got an inquiry from DSC about the possibility of improving the manufacturing technique in DSC's plant. Processteknik received an order for deliveries worth 10m kr (£1.2m). A year later they got an additional order for an extension of the capacity worth 6m kr (£0.75m). Further deliveries to the customer's other plants are expected.

To the customer, the new plant means a saving of 300 kr per ton produced (£34). They can utilize less expensive raw material and they get a quality which is better fitted to their need than the raw material from external suppliers.

Delivery timing was very important. There was a well defined project programme with fixed dates. The delivery timing of the additional order was still more important because of the demand.

DSC did not adapt their product or process simply because they used Processteknik as the supplier, but of course the process is adapted to the new technique. They had, however, to modify their production plans according to Processteknik's delivery capacity. They also adapted their spare stock policy so that they keep spare parts in stock. This stock, however, is not big enough for complete safety, but the agent has complementary stocks in Germany. DSC has also had to accept Processteknik bolts in inch not metric dimensions.

Processteknik, on the other hand, adapted certain details of their standard machines to suit DSC's needs. They rebuilt some components which in several cases caused improvements. On the whole, however, the plant was a tailor-made combination of Processteknik's standard components. Processteknik also increased the agent's stock of spare parts. Further, DSC required that the machines were delivered in a form which Processteknik had not used before. They were dismantled or knocked down in order to be more easily fitted into the old plant. This may become Processteknik's standard delivery procedure in the future.

The sales manager was very much at the centre of the whole project. In the negotiations he had contacts with DSC's managing director, the technical director of the group, their project manager, the local production manager, and the purchasing manager who only took part in the meeting when the real negotiations were finished. On the part of Processteknik the managing director, the technical director, and a lawyer participated in the negotiations.

The sales manager also became Processteknik's project manager. He was assisted by a project co-ordinator and groups of 3—4 persons from process and electrical engineers, instrumentation, and construction. On the part of the customer the project meetings were attended by their project manager and his assistant, a construction engineer, an electricity engineer, an instrumentation engineer, and works management.

These groups had 5—6 meetings in Germany and 3—4 meetings in Sweden. For training purposes, Processteknik arranged an instruction programme in a plant which Processteknik had delivered in Sweden. Processteknik supplied a complete training package with literature, teaching, and practical training. This education was given to groups of 12 to 14 persons comprising works managers, machine operators, and maintenance personnel.

Finally, a number of service engineers were in Germany during the start-up of the plant in order to optimize the processes.

SOME CONCLUDING COMMENTS

The concept of a relationship is obviously quite relevant here. Both of the two

transactions grew out of relationships which had been established in connection with preceding transactions.

Moreover, relationships with other companies than the customer in question are relevant. For instance, in the German case two other relationships are mentioned. The transaction was possible, thanks to a relationship with a Swedish customer, a relationship which was so close that Processteknik was allowed to make a test run in that customer's plant and demonstrate that it was possible to get a better quality product there. An agreement with another Swedish customer made it possible for Processteknik to give the German customer's personnel practical training in Sweden. This relationship was also utilized in the transaction with a French customer and was part of a standard training package. It seems that close relationships with domestic customers is a valuable resource, to be exploited in international markets.

More generally, relationships with other customers are implicit when reference was made to the Italian customer's confidence in Scandinavian suppliers.

Here it is worth mentioning that there are fairly close horizontal relationships between the customers in that industry. They know rather well to what extent plants from different suppliers are competitive. It is often necessary in this type of industry to be able to refer to plants which are working successfully. To introduce a new technology, therefore, usually requires old and close relationships with some competent users.

The activation of the relationships took place in various ways. In the Italian case it started when the Swedish sales engineer made a sales visit to the customer together with the agent. In the Germany case it started with quality problems in the German plant, on which Processteknik acted successfully. In a somewhat different way an order from a Swedish customer (not described here) started with technical discussions in a plant which Processteknik had delivered to the customer. This discussion led to a concrete idea which was tested in that plant by its technical management with a good result and was realized when the customer was investing in another plant. In both cases, the transactions were the direct results of successful follow up of technical discussions with the customers.

Considering the interaction in the two relationships described, there is a difference due to the size and complexity of the transaction. The business deal with the Italian customer was carried through by the sales engineer. The agent took part in the beginning and two service engineers in the end. In the German deal (which was much larger and more complex) Processteknik distinguished a number of different stages. Directly after the activation when the basic technical issues were clarified, a decision was made on the policy level whether to engage in negotiations or not. After that decision, top-level negotiations took place. Subsequently, an inter-organizational project unit was formed with a project group from each of the companies.

At this stage a number of technical specialists of the companies were directly or indirectly involved. This organization unit is very much adapted to the competence and need of the customer. Those factors also influenced the training stage which followed. The possibility of taking customer personnel to another Swedish

customer for training was considered very important. It was, however, not utilized the deal with the other Swedish customer. Finally, a group of service engineers took part in installation, start-up and process optimization, stages which are also adapted to the competence and needs of the customer.

MECAMINE

Robert Salle and *Michel Perrin*

INTRODUCTION

This case identifies and analyses some typical characteristics of the marketing of heavy equipment. It concentrates on buyer–seller relationships in a context that is usually characterized by the long purchasing process, deep and extensive buyer–seller interaction, and large costs for both parties.

In such a transaction, the risks involved for the buyer as well as for the seller are at a very high level. The case shows how both parties in the transaction develop specific strategies with the object of reducing perceived risk for themselves (as in the case of buyers) or for both parties (as in the case of the seller). Examples are provided of variations in attitude towards risk from one client to another and of how those variations affect actual relationships. At one extreme there is evidence of use of advanced approaches to managing a relationship involving very close interplay between supplier and customer and at the other extreme of a very commonplace relationship with little or no interplay.

Finally, the case also shows some interesting features of Mecamine's strategy for penetrating potential markets and how this relates to a product portfolio and a technological strategy.

THE FIRM

Mecamine is a subsidiary of an industrial group. They are specialized in capital goods used in quarrying and underground works. Their turnover doubled between 1971 and 1976. This medium size firm provides a large number of sub-contractors with work.

Product

Mecamine's turnover is essentially realized from two types of equipment:

	% turnover	% of product exported
Products 1	40	60
Products 2	40	70

The characteristics of the products are as follows:

- Their high price, each one valued at several hundred thousand francs;
- The fact they are purchased irregularly on account of their long life-cycle (about 20 years);
- Products have a high technological level: they are partly custom-built and partly standardized. One or several devices can be adapted to be incorporated on a basic machine which is standard and similar to products (1) and (2).

Competition

Competition is very severe for products 1. However, as regards products 2, Mecamine is the world leader. For Mecamine as for its major competitors, the reference market is the whole world. Competition in the industry is generally fierce, so the present trend is to specialize in some particular lines. Products 1 and 2 are complementary: they can be used successively by the customer in some operations connected with underground operations. The customer can buy several Mecamine products having successive uses and from the customer's point of view the advantages are numerous: use of some common spare parts, the same after-sales service, possibility to obtain special credit facilities and technical adaptation due to a higher volume of purchases.

As regards competition, Mecamine can boast of having the following assets:

- Superior technical quality of the equipment. Mecamine's equipment is rather better than any other at the present time due to large investments in technological innovation. Mecamine has a good public image built up on high technological competence;
- Better delivery lead times;
- Commercial competence is perceived as high by Mecamine's customers when they evaluate Mecamine's sales force.

The Company's strength stems from the training and the selecting methods for engineers and salesmen. They have been specially trained to solve customers' problems in quarrying and underground works and not the supplier's problems. Mecamine's equipment is specifically applicable for the customer's usage. This characteristic is seen by Mecamine's management as being their most valuable competitive advantage. In most cases, their engineers can suggest comprehensive solutions, that is to say complete material extraction techniques. Their engineers have a name as technicians and experts on account of their first-rate knowledge of the techniques used in the industry.

The Market and Customers' Responses

The market is characterized by the following features:

- Customers place a higher value on service than on price;
- Changing suppliers seems a rather difficult move to make for a customer. This passive behaviour results from the strong interdependence between customers and suppliers. The customer is somewhat captive, often needing a lot of technical advice, a continuous adjustment of products to suit specific problems and, in some cases, joint development work on new equipment. This latter aspect can only be provided by suppliers that feel reasonably confident about customer's loyalty.
- Complying with delivery lead times is very important too. Thus, offering shorter delivery times may be a factor to be taken into account to explain the customer's choice;
- Maintaining the same standard of technical quality and hence product reliability;
- It takes quite a long time generally to make the purchase (one year on average). The process usually starts with an initial period of 2 to 8 weeks that corresponds to the investment made by the seller in order to understand what its customer's problem is exactly. The length of the purchasing process may be explained by the considerable amount of money that is involved (a major customer's order can, on average, reach up to several million francs), the fact that purchases are irregular and often treated as a `new task' even if the client intends to buy from its usual supplier. This is because the customer's mining problem might have changed considerably since the last purchase.
- The market is made up of a few customers; there being hardly more than one hundred for a product. The major customers are characterized by their large size, being bigger than Mecamine, and often have integrated activities that range from ore extracting to manufacturing sophisticated products.

In the countries surveyed, the turnovers realized from exports are as follows:

Country	Percentage of supplier's turnover in the countries surveyed	Market trends and specific features
France	32	Small decline
West Germany	8	The market is on the upward trend (+20% per year). But it is very difficult to have stable market shares
UK	10	A slight decline is expected
Sweden and Italy	0	—

Distribution

Sales are made directly in France and in the Eastern countries. In West Germany, Mecamine has a branch consisting of a sales engineer and an after-sales service technician. They have a stock of components available on the spot. But as soon as technical problems are getting harder to solve, they are dealt with directly by Mecamine.

In Great Britain, Mecamine products are marketed through the subsidiary of the Mecamine group. But in this country, also, Mecamine steps in due to the fact that the machines are partly custom-built.

THE FRENCH RELATIONSHIP WITH CUSTOMER DURFER

Durfer is a major steel-making group, internationally orientated and integrating ore extraction with manufacturing finished products. The customer buys products (1) and (2) from Mecamine.

Durfer is a very important customer since its volume of purchases accounts for 30 per cent of Mecamine's turnover in France. The customer was approached by Mecamine in 1952 after an intensive prospecting for business by its sales force. This customer was chosen because it is go-ahead, well-known, and innovating. Additionally, it is one of the French leaders in its field.

Mecamine was able to approach Durfer owing to a favourable reputation gained by products (1) which were the only ones within their range being marketed at that time.

In general, the way a customer is approached can be described by the three following stages (a general case):

Supplier	Link		Customer
1st stage	Salesman	→	Quarrying and mining department (user of Mecamine's products)
2nd stage	Marketing Department	→	Quarrying and mining department (user of Mecamine's products)
3rd stage	Marketing Department	→	Purchase Department

The first and second stages are crucial in the choice of the equipment. `Once the quarrying and mining department is convinced, the deal is almost made' said one of Mecamine's officials.

In 1952, Mecamine supplied Durfer with product (1). The customer valued Mecamine's technical expertise and felt confident about Mecamine's ability to solve their problems. Mecamine's willingness to adapt and accept large initial investments were also a key factor. Mecamine's was, therefore, successful in reducing an important perceived risk.

From 1952 to 1960, a close collaboration between the two partners enabled

them to develop a new product (product 2) implying an extraction technique completely different from the former one. Most of the supplier's departments (about 30 people) took part in the development of product 2 together with the customer's marketing, design, and test departments. First of all starting with product 1, and after several adjustments, the basic technique of the new product was developed. After many adaptations and long building phases during which the prototype was being tested, product 2 was finally completed; close collaboration took place between Mecamine's sales force and design department on the one hand and Durfer's design and production departments on the other hand.

The outcome of such co-operation was quite positive for both parties. Mecamine was able to develop a new product that could be sold elsewhere and gained experience and additional know-how as regards their own specific technology as well as the technology of their clients. Moreover, the new product 2 gave them a position of world leader due to the technological innovation that was involved.

Positive consequences were also noted as regards their position on product 1. By adopting product 2 Durfer made extensive changes in its working methods that were rewarded by a fourfold gain in productivity.

From 1960 to 1976, Mecamine kept on improving their equipment. Mecamine capitalized on this customer's goodwill to improve their equipment and innovate in order to strengthen their position. The costs of these interactions are borne by the supplier, but Mecamine consider them as a technological and commercial investment for they enable the Company to make their position of world leader stronger in the market for products 2.

Durfer was, of course, the first one to benefit from the technological improvements. In particular, Mecamine made the machines sound-proof and improved the workers' safety. Working relations between Mecamine's sales engineers and design department and Durfer's production engineers were necessary for this phase.

The French example is a good case of a joint development of a new product and a new technique with a customer willing to take risks along with the supplier. This was made possible by three factors:

(1) The ability of Mecamine to demonstrate that the investment accepted by the customer could be very profitable for him in the long run and Mecamine's capacity to produce a response to the customer's problem; (thus reducing an important perceived risk).
(2) Interpersonal compatibility that produced a favourable social context for co-operation.
(3) Inter-institutional compatibility that was sustained by congruence of value systems and business philosophy between the two organizations.

THE BRITISH RELATIONSHIP

The customer is Britchem, an international group. They deal in the chemical field and integrate ore extraction and the most sophisticated finished products.

This customer is important for Mecamine for several reasons: First of all, Britchem buys both product groups 1 and 2 from Mecamine and the latter covers 100 per cent of Britchem's needs for product 1; secondly, there is a complementarity between the use of Mecamine's products and some of Britchem products; in some instances, Britchem prescribes Mecamine's products.

Mecamine's strategy was to consider Britchem as a very special customer because of both the potential that it represents and because of its role as a product-setter. The very high competence of Mecamine's sales force led to a positive relationship with Britchem although Mecamine actually suggested a new working technique, very different from the one Britchem was used to. The supplier had his solution adopted for he was regarded as reliable technically and because he put forward his considerable experience, his ability to discuss matters in terms of solutions to be brought to the customer, and not exclusively in terms of supplier's equipment to be sold and finally, a brochure listing the number of problems which had been solved in the past.

In its proposal to Britchem, Mecamine suggested a rather comprehensive solution allowing Britchem to cut down operating costs and the size of the work force and to improve safety and working conditions.

Mecamine also committed itself to teach workers how to operate the equipment (the technology that was proposed was unknown to the customer) and to get the equipment working and train personnel for maintenance.

In order to get Britchem's orders, Mecamine also had to accept further adaptations especially in financial matters such as equipment rental and long-term credit.

A very close co-operation took place between the two parties in the transaction, very similar to the one that was described for Durfer, the French client.

In spite of the very high level of risk involved, Britchem accepted a situation that put the company in a situation of dependence *vis-a-vis* its supplier. The large investment that Mecamine made, thus showing great interest in this particular customer, Mecamine's willingness to spend a great deal of time and effort in implementing its solution, its demonstration of co-operativeness and willingness to help, was perceived by Britchem as a sufficient guarantee against risk.

Subsequently, Mecamine used Britchem as a platform to establish a very strong position for its products on the British market.

THE GERMAN RELATIONSHIP

The German customer Muller is an internationally-orientated mining company. Mecamine supplies them with products 1 and 2. For the customer, the product used is of prime importance because the choice of the product has involved a particular extraction technique. The French case has illustrated the development of product 2 covering the long testing period of this equipment preceding the final completion, thus giving Mecamine their outstanding reputation as experts and consultants. Thanks to this reputation and the efficiency of the sales force, Mecamine could approach Muller in 1965 with an equipment already operational. In this case, and unlike the French and British cases, the risk incurred by the

customer is not so great, the new quarrying techniques used with product 2 already proved reliable with other customers.

As in the two previous situations, the customer was compelled to change his working methods completely and to make adaptations combining new and old products.

What makes the difference with the other situations is the difficulty encountered by Mecamine in establishing strong and sound relations with Muller. The customer accepted the solutions suggested by Mecamine, but there was no close collaboration.

The supplier had to-give information regarding his production capacity, the size of the firm, his references. As a matter of fact Muller tried hard to make sure that the supplier who had been chosen could be relied upon.

On the contrary Muller gave Mecamine hardly any information and certainly nothing about the customer's situation and market trends. The customer seemed to feel very suspicious towards its French supplier. In many ways, the customer was trying to avoid dependence. This appears to be a rather typical attitude of German buyers towards French suppliers. For the sake of comparison we could point out that the Mecamine's marketing executive interviewed claimed to have gathered more information about a Russian customer's market in a fortnight than in 13 years about the German customer's market.

Muller's need to control the reliability of the equipment was also insisted upon. For instance, Mecamine, together with their German customer, had to make frequent visits to the customer's plants in which their equipment was used. Mecamine had to carry out equipment demonstrations for six months at Muller, which is a far longer period than the average for this type of equipment which is already well-known and operational.

However, Mecamine tried to apply the same kind of strategy as for its other customers, offering a great deal of service and assistance. In this particular case, Mecamine also kept a stock of components and spare parts at the customer's location and with its West German agent as well. Mecamine stepped in with their sales engineers and their design staff to constantly improve their equipment, the workers' safety, and the output. Mecamine also provided their customer with the training of Muller's workers in a new and complicated technique, as they did for other customers.

Mecamine had approached Muller in 1965 thanks to their technical experience with product 2 which had been developed from 1952 to 1960 (See the French relationship).

Unfortunately, a German firm copied products 2 and improved them with a technique specific to this product. Mecamine then lost a big share of Muller's market. Mecamine counter-attacked by a strategy of technological innovation aimed at thwarting counterfeiters and securing a leading position. However, Mecamine's position is much weaker on the German market than it is, for instance, on the British or French Markets. Mecamine was unable, on this market, to gain customers' loyalty and to totally protect their leading position as regards technology.

CONCLUSIONS

The three case studies underline three different degrees of supplier—customer interplay.

(i) First of all the French relationship illustrates a very strong supplier—customer interplay. The customer was willing to accept great risks in developing and adopting a revolutionary technique which implied a complete change in working conditions. The supplier could minimize the risk incurred thanks to a solid reputation and its competence as an expert and a consultant. This relationship was actually creative and profitable for the two partners.

— On the one hand, the customer increased his output by adopting this product, and gained ground against his competitors;
— On the other hand, the supplier could tap a new and important market and stand as a world leader.

(ii) The supplier's approach to the British customer is similar, but the advantages gained by the two partners are not so great as in the French case.

— On the one hand, the customer increases output and productivity over competitors which is advantageous in its own market;
— On the other hand, the supplier is gaining in experience and trustworthiness.

In the two cases, the customer is in a semi-dependent position, so is the supplier in many ways.

(iii) In the German relationship, the supplier's interplay with the customer was minimum. The supplier was unable to establish a preferential relationship with the customer. The latter could change suppliers depending on the offer made by the other competitor. The customer did not become a captive and actually strongly avoided becoming one.

Since in all three cases the same kind of approach was used by the supplier, each of the three customers having a similar importance for Mecamine as regards their national markets, it could be hypothesized that differences between the relationships can be partly explained by differences in:

- The social and cultural environment of the transaction;
- Purchasing strategies and buyer—seller relationship strategies on the part of the customer;
- The context of the social exchange as regards interpersonal relationships.

GENERAL INTRODUCTION TO PURCHASING CASES

In the three previous sections relating to marketing problems in different types of firms, we have also identified different purchasing strategies. This reflects one of

our basic aims, namely to treat purchasing and marketing in a parallel way. We now turn to the problems and strategies of purchasing firms in industrial markets. In doing so we wish to adopt a purchasing perspective. The purchasing strategies identified have been characterized in relation to the purchasing firm's way of using the supplier. At one extreme the purchasing firm uses the supplier in a standardized way, whereby it only evaluates the product and its price. At the other extreme the purchasing firm tries to use the supplier in a more extensive way and accordingly has to evaluate the supplier in terms of its total competence and abilities. Which strategy a purchasing firm should use in a certain situation depends on several factors. In the introductions to the three purchasing sections we will discuss this further for different types of purchasing companies. Each section starts with an analysis of the influence of the production technology on purchasing in terms of what supplier abilities are more important to different types of purchasing companies. The discussion also relates to two other important factors: These are:

(a) influence of the characteristics of the supply markets
(b) the influence of the characteristics of the purchasing firm's organization.

It is important to notice that in the earlier discussions of marketing companies, we have dealt with many problems that are also relevant here.

SECTION 4.4 PURCHASING IN FIRMS WITH UNIT PRODUCTION TECHNOLOGY

CHARACTERISTIC PURCHASING PROBLEMS

A unit producing firm is characterized by its production of products specifically designed or adapted to meet the requirements of individual customers. The units produced are often large and may consist of complete systems, which means that they are built up by a number of components. In order to be able to produce such a unit by itself the producer needs to have very wide competence. Increasing specialization and more complex products have made it difficult for a company to have competence in all aspects of its product's component technology. Consequently, unit production firms have specialized in assembling the different components into a functional system and in producing a limited number of key components. Thus, a necessary condition for efficiency in such a firm is an ability to combine its own competence with external competence in those important areas which it cannot cover itself. The unit producing firm must, therefore, surround itself with competent suppliers, especially of components. Suppliers of raw materials or equipment may also be important, but are usually much less so than component suppliers.

Two different kinds of external competence are needed by the buying company. The first one regards the ability to develop, design, and produce components

which are essential parts of the sold unit. For these components the producer has a need of external resources both for development and production. By having contacts with advanced component producers, the firm can obtain advantages in his own market since customers are often interested in these key components even if they buy a whole system. The component suppliers can thus play an important role in the marketing process.

The second type of external competence that is needed concerns the more simple components that sometimes may form a substantial part of the unit. For these components the unit producer has a need of an efficient external production resource. The competence needed in these situations is much more limited and clearly specified than for the first type.

Obtaining and handling these two types of external competence can be said to be the main tasks of the purchasing function. How this work is done is dependent on several factors, both outside and inside the purchasing firm. We will here limit the discussion to two of the most important ones:

(i) *The characteristics of supply markets* At least two important characteristics can be identified. The first one regards the degree of concentration and the second one the degree of dynamism of the market. Variations in these two factors influence buying behaviour in several ways.

The markets of more advanced components often consist of few large suppliers. Basically, there are two ways of handling such markets. The first and most common strategy implies that the purchasing firm tries to establish a very close and intimate co-operation with one supplier and that it is satisfied with limited contacts with other suppliers. When using the second strategy, the firm tries to establish the same kind of relationships with several suppliers. Quite clearly, these relationships cannot be so close as the first one. The resources that could be usec in one relationship in strategy 1 must be divided among several suppliers in strategy 2.

The benefits of the second strategy are that the purchasing firm gets a greater freedom and can more easily change from one supplier to another.

The number of suppliers is normally larger for the more simple components. Al the same time the difference between the suppliers are less pronounced and the buying firm, therefore, often tries to get suppliers located close to it. The closeness makes the purchases easier and less costly and this is important as the small differences between the potential suppliers do not make it worthwhile to use suppliers situated at greater distance.

The second factor, the degree of dynamism, regards both technical and economical changes. Markets characterized by technical development or business fluctuations must be treated in a different way than stable markets.

(ii) *Organizational characteristics of buying company* Some general organizational characteristics are relevant for the purchasing task. Two of these are the degree of specialization and the degree of centralization within the

organization. A buying company that is characterized by a high degree of specialization and a high degree of centralization will act in a different way in relation to its supplier than a company with opposite characteristics. Since, for example, the reward function for the individuals will be different. However, more interesting in this context is that some of the specific features of this type of companies create special organizational problems, particularly in relation to how the purchasing work should be divided within the purchasing firm and in relation to external units.

The need of customer adaptations, in combination with the size of individual projects, makes it necessary to constitute project groups or teams to carry out the purchasing work. The purchases are thus done in relation to individual projects. As we noted previously, the co-operation with certain suppliers has to be of a more long-term nature. The connection between the long-term and the short-term purchasing work is thus important and it can create problems and conflicts between different organizational units. The conflicts occur because of the special organizational design that often has to be used. This consists of one basic organizational structure around a centralized purchasing department, which is responsible for the long-term work, and several temporary project groups with extensive authority in relation to purchases for individual projects.

Another special feature of purchasing problems of these companies is connected with involved units. There are both external and internal units in relation to the purchasing firm that can be involved and thereby influence the purchases. The most important type of external units are the customers who are often rather active and want to influence, for example, the choice of important components. The reason for this is, of course, that these components are important both in terms of the functioning of the whole system and for its maintenance. The customer can thus have specific preferences for certain component producers. Within the purchasing firm there can be different departments involved. The technicians from the design department normally dominate the purchases of the more essential and complex components while the purchasers play the same role for the simpler ones.

Four company cases will now be presented which each exemplify the discussion above in different ways.

Electra

An Italian firm's supplier relationships are described and its purchasing problems are analysed. An important problem for this firm is to handle the markets for electronic components. The firm has chosen to co-operate closely with a domestic supplier (strategy one in the discussion above) and the purchasing personnel are now worried because they suspect that the supplier is not keeping up with its competitors. More simple mechanical components are bought from neighbouring suppliers. At the end of the case some organizational problems of the purchasing firm are discussed.

Antriebswerke AG

This case is about a German firm and its way of using the British supply market. The firm has a very strict buying policy which, among other things, aims at pre-venting contacts between the production and development personnel in its own firm and the personnel in the supplying firm. In three of the four analysed relationships this policy is successfully implemented, but not in the fourth one. The product that this latter relationship concerns is so essential and complex that a technical exchange is needed. In the three other relationships the technical problems are much less intricate and, therefore, can be handled by the purchasers. The case further illustrates the bad reputation of British firms regarding their deliveries.

Teximac

Teximac is a British machinery manufacturer and the case deals with how its supplier structure for a very important component has developed during the last 20 years. The case is a very good illustration of the dilemma of a purchasing firm when deciding which supplier to use in the future. Each supplier normally has its weak and strong sides and there are thus reasons for and against all suppliers. The problem is that the buying firm normally cannot wait and see, but has to make a choice.

Salka

This is a Swedish engineering firm specialized in the designing, manufacturing, and marketing of equipment for handling of liquids. The firm has several different production lines, some of which can be characterized as unit production and some as large-batch production. The case exemplifies how the buying firm works together with the suppliers in order to develop different components. Organizational problems are discussed too. These concern both the division of the long-term and the short-term purchasing work as well as the differences in the purchasing work for different technologies.

ELECTRA S.p.A.

Ivan Snehota

INTRODUCTION

This case deals with the heterogeneity of buying situations faced by a medium sized Italian company operating in a high technology sector where system selling and production to order are the dominating types of operation. The main thrust of

the case is on the internal structure of the procurement function and its ability to cope with a heterogeneous supplier market situation.

Electra S.p.A. (1977 turnover $100m, 5,500 employees) has shown steady growth since its creation after World War II by a dozen electrotechnical engineers. Until 1970 all the manufacturing activities were concentrated on one plant in Eastern Italy, but since 1970 4 major and 2 minor sites have been opened all over Italy.

Up until the mid-sixties, Electra S.p.A. was mainly supplying the rapidly growing domestic market and exports amounted to less than 20 per cent of the total turnover. The slow-down in the growth rate of domestic demand since then has led to an increased export effort. In 1970 exports reached 40 per cent and today they oscillate at around 50 per cent of the turnover. Main export markets are the Mediterranean area, South America, Africa, and Eastern Europe. Electra has a dozen foreign subsidiaries, half of which have some production or assembly activities.

MAIN FEATURES OF THE INDUSTRY

The history of Electra is quite typical of the industry. The original business of Electra was the manufacturing of telecommunications equipment, but since about 1960 the erosion of the market by the continuous expansion of the component manufacturers, pushed the Company more and more towards the construction and marketing of complex systems. At present 75 per cent of its turnover comes from the sale of communication systems. Demand for these systems is world-wide.

The overall volume of investments in communication systems, which is mainly determined by governmental and institutional decisions and programmes, fluctuates a lot and brings about massive demand variations. This affects not only the constructors of the systems, but also the component market. In the past, there has been a considerable excess of demand, but at present the demand–supply situation seems to be approaching an equilibrium.

Some 20 per cent of Electra's employees are in the R and D Department which is an indication of the level of sophistication of the technology of the business. Electra has, by and large, sufficient technological know-how and capacity to design, produce, and install systems in every detail. Amongst the few exceptions to this, are some electronic components and some measuring appliances. Typically, however, Electra produces only some of the main non-standardized parts of the system, and buys electrical and electronic material, some major standardized components to suit the system, and also some installation services from outside.

The importance of purchases in the Company's activities is considerable. More than half the costs of production is accounted for by outside purchases, somewhat less than 25 per cent is labour costs and roughly 25 per cent represents depreciation of the capital equipment. The buying department has only 60 employees currently. Purchasing and material management have, since the early 1970s – as a consequence of an effort to keep financial costs under control – been put together

in a combined department, `Purchasing and Materials', which has a total of 250 employees.

PURCHASING EXPENDITURE

Total volume of purchases, investment goods excludes, amounts to 40—45 per cent of turnover. Purchases of investment goods over the last 10 years amounted, on average, to 8—10 per cent of the turnover. The spectrum of products bought is rather varied and no single item is dominant. The main product groups bought (in value) are:

	Percentage of purchases
semiconductors	8%
mechanical products	8%
connectors and relays	4.5%
capacitors	4%
non-ferrous raw materials	3.8%
resistors and potential meters	2.5%

The share of imports in the total amount of purchases has fallen from 55 per cent in the beginning of the 70s to 40—45 per cent in 1977. The most important foreign supply markets are the US, Holland, and Germany. France, Great Britain, and Sweden are much more limited as supply markets. The dominance of the US supply market seems to be decreasing at a sustained rate and Germany especially seems to be offering new possibilities.

To understand the different buying situations it is necessary to look at the overall structure of the Company (cf. Exhibit 1) and of the Purchasing and Material Management Department (cf. Exhibit 2). What is worth noticing is the status of the Installation and Maintenance function which, working together with Sales, represents a `second manufacturing sector', being responsible, after the acquisition of an order, for final checking of the design of the system and its installation. It takes, among other things, the initiative to order components of the system not produced in Electra which are fitted to the system. The manufacturing function is split into four product divisions in charge of running Electra plants and product developments activities. The nature of the business (system-selling), reflected in the structure of the Company, influences heavily the composition of purchasing expenditure. The items bought serve several purposes. Nearly 40 per cent of the total purchasing expenditures is represented by items used as inputs in production ('direct materials'). This group includes products such as electronic components, electrical materials, connectors, relays, structural supports, etc. All the major product groups in this category (75 per cent of the volume) are purchased on yearly con-tracts with the suppliers.

Some 25 per cent are major components of the total system, incorporated at the moment of installation of the system (and often delivered directly to the place where the system is erected) and sub-contracted installation services. Electra's clients are occasionally involved in these purchases. The involvement of sales staff and installation people in these purchases is substantial.

Investment goods, representing more than 15 per cent of total purchases, include a great variety of items. Apart from minor machinery, a whole range of measuring devices are an important product group in this category. More than 7 per cent of the total purchasing expenditure is on materials bought for use by the R and D department. The remainder, less than 15 per cent, are operating supplies bought to a considerable degree locally by the production units.

The `direct materials' bought in a year represent about 24,000 different items, two-thirds of which are electrical and electronic materials and one-third mechanical materials. In total 1700 suppliers are used (on average 700 in a month). Out of the 1700, 1300 are suppliers of `direct materials'.

If the heterogeneity of product usage is considerable, so are the supplier markets. The four supplier relationships described below represent some of the main buying situations.

Italsistor S.p.A. — Supplier of Electronic Components

Italsistor has been a supplier to Electra since 1947 and is today one of the most important suppliers accounting for nearly 5 per cent of its purchases covering half of its needs for the range of components it is offering, from rather simple standard components to custom-made components crucial to the overall performance of the systems sold by Electra.

The electronic components market is heavily dominated by a few US companies (some of them with subsidiaries in Europe) and a couple of German companies, which have the R and D capacity and production technology required.

The most sophisticated components, produced in limited lots, are often very innovative and `custom-made' with collaboration between a large user and a supplier. The unit value of these components is relatively low, but the volumes exchanged are considerable. The unit cost depends heavily on the size of the production run and the originality of the product characteristics (how new its structure is) to the producer. The competence of individual suppliers is evolving quite rapidly due to the fast development of technology in this field. This, and the fact that supplier contact often represents an important source of technical information for the buying firm's R and D people, seems to induce large buyers to keep alive relations with all the major manufacturers by placing at least small orders now and then.

Conformity to specifications and resistance to environmental conditions are the two features closely watched by Electra. Neither of these seem to be difficult to assess, but the nature of the production process is such that complete uniformity of products cannot be guaranteed even in the same batch. For the components which are `critical', this means that individual control, which is very costly (cost of

control equal or even higher than purchasing price), is necessary. Great importance is, therefore, given to collaboration with the supplier in order to develop his production processes and quality control systems.

The information flow between the two companies is extensive. More than 40 persons from Electra are regularly in contact with about 30 persons from Italsistor.

Five persons from the purchasing department are involved with Italsistor: the head of the function on general management issues and general policy; the head of purchasing for the production department is responsible for stipulating the conditions of the yearly `letters of intent'. An open contract of Sales in Italsistor and the progress of orders is discussed once every 2 months.

Given the importance of this supplier, a senior buyer works closely with them and issues monthly orders for specific items according to the needs expressed by production. He does not process the order, but only checks the delivery. He is, however, the `trouble shooter' in the relationship, which entails almost daily contact with suppliers' sales people and very often with Quality Control people in both companies and occasionally with production people. The task of progressing orders, if necessary, is carried out by one person from Delivery Service. The head of the department also brings together production people from both sides for any eventual modification of the products exchanged. With his own production people he discusses delivery policy. For the requirements expressed by R and D, Italsistor is contacted by the head of the department of Purchases for R and D.

Another flow of contacts involving dozens of people, partly out of reach of the buying department, is that between Electra's R and D people and suppliers sales, R and D and production departments, which concern mainly the feasibility of certain new solutions. This topic is even discussed between R and D people and Italsistors competitor salesmen which pay weekly visits to Electra's technicians.

The experience obtained in R and D is often shared and in principle, in both companies anyone can make contact with anyone else, unless the management on either side has explicitly said `no' for a certain project or department. Thus, technical co-operation appears satisfactory and Electra's people have a great esteem for Italsistor technical know-how and capacity. Electra is, however, bothered by the changing `managerial climate' in Italsistor that seems to be following from a number of changes in the top management group during the last decade. There is a widespread feeling that the valuable human and know-how resources of the supplier are not managed properly. Within the sales department of the supplier there has been a high turnover of personnel and lack of motivation can be encountered, especially when it comes to initiating and managing joint development activities, which would require an integration of R and D efforts and institutionalization of certain joint activities. Given that Electra accounts for about 5 per cent of Italsistor's sales this is rather puzzling to Electra's people, even if they recognize that the propensity of Italsistor to collaborate is linked to possibilities to exploit the results elsewhere. Italsistor may, therefore, be less interested in these joint development activities since the bulk of its sales is represented by more standard components.

Electra fears that Italsistor is thus, in the long run, losing competitiveness even if, for the time being, the existing import barriers (15 per cent import duty) still make it advantageous to deal with Italsistor. At the same time there is a conviction that it is easier to collaborate with a domestic supplier than with the remote and more powerful foreign suppliers. Electra is, therefore, trying to induce Italsistor to develop further its production processes and to be ready to consider some risky joint development projects.

Rossi and Sons — Supplier of Mechanical Supports

Parts of the system, such as boxes, supports and the like, are often custom-made to fit a specific system and the possibilities of standardizing them are limited. These products have a low unit value and entail considerable transportation costs. Electra is, therefore, trying to develop suppliers located near to its factories. The total number of potential suppliers is very high. Typically, these are firms with some 50—100 employees in the metal manufacturing sector. The production technology required of a supplier of these mechanical parts is not very sophisticated. A potential supplier must, however, provide certain standards of quality and supplier service.

A major difficulty for Electra is to get the supplier to perceive exactly what the important elements of supplier service are (quality tests, flexibility in programming, etc.) Electra is ready to help a supplier to acquire all the necessary know-how and sometimes even help with equipment and personnel instruction. To get the supplier `to perform well' is time-consuming and may explain why supplier changes in this market are not very frequent. Electra feels responsible for keeping such suppliers alive and tries, as a rule, to limit its purchases to 30—40 per cent of a supplier's turnover.

Rossi is a rather small metal-working firm (50 employees, $1.5 million sales) located near to one of Electra's plants, supplying mechanical components made to design in small batches. Rossi started to supply Electra in 1962 when approached for deliveries of support structures and instrument boxes.

Rossi was judged by Electra's production technicians as generally `competent' and it was included in the list of suppliers. It was helped to improve its production processes (especially welding) in order to meet the standards required.

In the `boom' period during the 1960s, the bulk of Rossi's production was bought by Electra. Rossi was anxious to have all of its capacity utilized and did not supply competitors. Consequently, a slow-down of Electra's activities hit Rossi very hard in the beginning of the 1970s when the volume exchanged shrank to about one third. Since then, Electra has been trying to keep the volume bought to no more than 30 per cent of Rossi's sales, allowing Rossi to supply even its direct competitors.

Instrument boxes and supports bought from Rossi are produced to Electra's specifications and are specific for a singular system in production and installation. Only a few of these can be standardized and produced for stock kept at Rossi's premises. Since the specifications are largely dependent on the place and mode of

installation of the system, and these are known to Electra only very shortly before the installation date, great flexibility in production programming is required from Rossi.

On the technical side the critical features of the products are the dimensional precision and resistance to changing atmospheric conditions. Electra's technicians have helped Rossi in the past with their know-how. Today, Rossi is fully able to meet Electra's specifications and is keeping up well with the technical developments. They even commission work from sub-suppliers when special requirements, for example, surface treatment, are specified.

A senior buyer of `Mechanical parts' handles Rossi. He proposes, for approval of the head of the department, the terms of a yearly letter of intent which fixes the volume and economic conditions and issues the monthly orders to the owner and general director of Rossi, while the delivery administration service follows deliveries. The buyer only intervenes when problems arise and resolves them with the head of Rossi's workshop. Colleagues from the special purchases department are quite often in contact with Rossi. Production and engineering people are involved with Rossi whenever there are new specifications.

The senior buyer in charge visits Rossi monthly, often with production, sales, or financial colleagues, accepting the role of consultant to Rossi on problems of management control, programming, and forecasting, even though this is not institutionalized.

While satisfied with the technical competence and the helpful attitude of the supplier, Electra's people complain somewhat about its ability to programme production and to exercise management control which occasionally may lead to delivery delays. They consider Rossi easy to deal with, however, since apart from the importance of the contract in terms of the volume bought, being a supplier to a company as prestigious as Electra gives an advantage to the supplier when dealing with, for example, banks or other institutions.

Bradick Ltd. — British Supplier of Components of the System

Transmitters supplied by Bradick are important components of the system. Although not very complicated technologically, they could jeopardize the efficiency of the whole system, hence the problem of quality is crucial. At the moment of erection of the system, its main components are mounted in a definite order. In order not to delay or extend the installation work, transmitters must be delivered within a 3—5 day period to the site of erection. Changes in the work dates, as well as delivery delays, are rather frequent. Servicing and repair costs, if incurred, are considerable, since the sites of erection are located all over the world, mainly outside the urban areas. The unit value of these transmitters ranges from $1,000—$2,000.

There are less than ten potential suppliers known to Electra (mainly in Britain, Italy, and Germany), and only three of them offer a full range of transmitters. Bradick, a medium sized British Company with 200 employees has been a supplier to Electra since the mid-sixties. In the beginning only a few special types

of transmitters were purchased from Bradick, whose prices were considered to be too high. The majority of the transmitters needed were bought from an Italian supplier, with whom Electra had a lot of trouble with quality (complaints from customers and costly repair actions) and despite repeated attempts to get the supplier to improve his performance. This went on for some 2–3 years mainly because Electra's sales department, fearing a cost increase, was reluctant to buy from Bradick.

Negotiating an important contract in Portugal in 1970, Electra's top management did not wish to take any risks. The buying department, after calculating the costs of repairs and servicing caused by non-satisfactory quality, asked the engineering department on its own initiative to type-test all Bradick's transmitters.

After some discussions, these were then approved and accepted also by the sales people. A few months later the old supplier was dropped rather abruptly and the bulk of orders were placed with Bradick, who today supplies 70 per cent of Electra's needs, representing about one quarter of Bradick's production. The total volume oscillates between $400,000–1,000,000 a year.

In the beginning Bradick was rather `cold' but when it realized that the relationship was a stable and serious one it became more and more helpful in all the problem situations, giving service also at the moment of installation. Bradick is considered to be earnest, compliant to all requirements, flexible, and has a good understanding of Electra's problems with their clients. They even developed new transmitters to fit Electra's systems, instructed its personnel, has given valuable advice on the feasibility of new solutions considered by Electra, and has undertaken some costly testing of transmitters.

About 10 persons from Electra and half a dozen from Bradick are regularly in contact. Order requirements are sent to Purchasing by the Sales Department's engineering section after they have been discussed with the Installation and Maintenance Department. There is a tendency among the 3–4 sales engineers responsible to by-pass Purchasing and Sales, directly contacting the supplier's sales and technical staff whenever the delivery time is short or a need to discuss technical matters is felt. Communication problems (language) have so far limited these direct contacts, but recently Bradick has established a `liaison man' in Italy to help with these problems. The buying department expects this to lead to more frequent direct contacts.

The head of the System Components section who handles contacts with Bradick, is maintaining relations with the sales director and the technical director of the supplier, usually together with Electra's R and D representative, in order to discuss potential developments of the exchange. The single orders are concluded with an area sales manager of Bradick, occasionally with representatives of the finance departments in complex cases. Delivery problems are handled by Delivery Service. Contacts have a clearly cyclical pattern, linked to the volume of orders acquired by Electra. Bradick's sales people and technicians make a visit every 2–3 months.

In spite of the fact that Bradick's overall performance is judged as being `very satisfactory', Electra has its eyes open for any new supplier. They consider

Bradick to be `somewhat tricky' as far as the financial arrangements are concerned, even though they admit that whenever they have suspected Bradick to be taking advantage of Electra they were wrong. They realize that this lack of confidence may have its roots in the situation when they dropped the previous supplier.

Henkel GbH – Supplier of Measuring Instruments

Measuring instruments bought in considerable quantities are used in Electra: (1) as components of the system; (2) in production tools and (3) in R and D and servicing activities. There are less than 10 potential suppliers that can offer a full-line of measuring instruments and about 20 small specialized suppliers who, however, seldom reach the quality standards and volumes required by Electra. Suppliers are typically medium size firms or divisions of large companies in the electronics field, operating on a global basis.

Fast development of electronics has caused rapid development in the field of measuring instruments. Comparisons between products of different makes is difficult because of the complexity of the products and subtlety of differences. The supplier firm's image is an important factor of choice. Important producer countries in Europe are Holland, Germany, and Great Britain.

Henkel is an established, well-known medium size German producer of one line of measuring instruments for Electra's industry, exporting a major part of its production. In Italy, its products are distributed by a large independent distributor company which, with respect to Electra, has only a very limited role of administering orders and deliveries. All contractual questions are dealt with directly between Electra and Henkel in Germany.

Since 1962, Henkel has been supplying Electra with nearly all of the high quality measuring instruments, especially those used in the production process. Another supplier is used when the required standards of quality are lower. For use in production, low precision and deviation in quality over time could cause serious trouble to Electra.

Today, Electra buys 500–600 different items for about $500,000 per year from Henkel. Although this is only 3–4 per cent of Henkel's sales, Electra feels it is an important client since it can give references and when the instruments are used as parts of the system, creates a considerable after-market. Henkel has long delivery lead times, but is extremely punctual. Buyers at Electra feel they get all the attention they deserve and appreciate Henkel's competence and willingness to adapt.

Henkel's catalogue fully suits Electra's requirements, hence there is no need to request any product adaptations, Henkel's flexibility is appreciated, especially when it comes to financial and service arrangements. Considerable concessions were granted to Electra, for example payment against documents rather than at o^{r}der which is the norm in the business. Advice on choice of models and timely announcements of modifications under way have increased Electra's confidence in Henkel. If called upon, technical sales-service arrives within 24 hours.

More than 10 persons from Electra are in contact with Henkel. The head of Special Purchases handles the bulk of orders for measuring instruments for use as components directly with the general manager and the commercial director of Henkel, on the basis of requests made by the production people. When there are large orders, Henkel's people may come to Electra as often as monthly and occasionally financial departments may be involved. Occasionally a request for an order is put by the R and D service and production departments for their own use, but these are usually forwarded by a senior buyer in charge by Equipment or R and D purchases. These departments, however, have usually made previous contact with Henkel through the Italian distributor. Routine delivery questions are cleared by Delivery Service and the Italian distributor. At least twice a year latest developments are presented in Electra by people from Henkel ready to instruct Electra's personnel.

Electra is impressed by Henkel's production philosophy which balances innovation and tradition, and by the way, all of Henkel's organization is tuned to customer service.

BUYING DEPARTMENT'S ROLE IN THE FOUR RELATIONSHIPS

Differences in the pattern of interaction in the four cases described above stem from differences in the scope of relations and differences in the buying situations.

In the case of Italsistor, the relationship is, besides its primary function of feeding the production unit, heavily marked by the secondary function of gaining access to supplier's development capacity. The emerging pattern of interaction is characterized by a very broad contact surface which could be difficult to manage. One of the stakeholders in the relationship, production, is mainly concerned with the delivery service aspect since the type of products exchanged is determined by the design of the system itself which comes from R and D. The R and D Department, having good knowledge about what exists on the market, but unaware of the market situation, is the determining force in the choice of suppliers and product items. The Purchasing Department thus has difficulty in exercising its expected role of bringing `market and economy aspects' to the R and D Department and managing the customer service for Production.

The complexity of the relationship, the structure of the purchasing department and the contractual power of the supplier, make it difficult to gain a complete picture of what happens in the relationship and to monitor and actively promote the short- and long-term aspects of the relationship. The Buying Department has difficulty in living up to its potential role of an administrator, and organizer of the relationship.

Both lateral and vertical influences on the Buying Department are strong. Since there does not seem to be anyone else to exercise an integrating function of linking suppliers and buyers organizations, it is difficult to introduce changes or a corrective action into the relationship.

In relation to Rossi, the main aim is to enlarge Electra's own production capacity. The interaction is complex in terms of content. Adaptations from Rossi

are almost unlimited regarding both products and delivery service. A lot of technical as well as managerial support is given to Rossi, but is quite straight-forward, in that it can be fully controlled by the Buying Department which has a clearly defined counterpart in the supplier organization and inside Electra. The buyer plays the role of consultant and co-manager of the supplier, linking him with Electra. He has considerable discretion in his decision-making, being relatively free from both lateral and vertical influences.

The usage of Bradick's products makes the pattern of interaction rather intricate. Electra's Sales and Installation departments do not limit themselves to commissioning the work from Purchasing, but contact the supplier directly. This prevents the buyer from fully `exploiting' the supplier, even if he has a fairly complete picture of the relationship. Considerable `technical' competence is required of the buyer (language, customs and transport arrangements, delivery information, etc.) A great deal of technical problem-solving ability and delivery service is required from the supplier, who is in a way serving three masters; sales technicians, installation people, and the Buying Department, with quite heterogeneous requirements.

The status of the buyer in charge of Bradick *vis-à-vis* Sales and Installation makes it difficult to mediate between the different aspects of the relationship. The situation may produce grounds for in-company disputes. Relations with Bradick and Henkel have similar cyclical variations which absorb a lot of the buyer's attention.

The broad range of uses of Henkel's products entails a lot of people from Electra being in contact with Henkel. Henkel's technical competence, supplier service, and flexibility are clearly superior to Electra's requirements and needs for this type of product, so that only a few specific adaptations are required from Henkel. This leaves the buyer with the simple role of being buyer and executor of procurement, with very little discretion as to what to buy and where. His bargaining position with respect to the supplier is thus weakened considerably.

ORGANIZATION STRUCTURE OF THE PURCHASING FUNCTION

The structure of the Purchasing Department (cf. Exhibit 2 below) is placed under stress by the internal heterogeneity in the Company and the heterogeneity of the supplier market which both give rise to quite different patterns of interaction. It has undergone severe modifications during the last few years.

Contrary to what one would expect, the department's structure is differentiated and specialized in such a way as to reflect the internal heterogeneity of the company and not the segments of the market environment.

Since the supplier market is heterogeneous and sometimes complex and uncertain, the main drawback of the present situation seems to be that it does not permit buyers to focus on and deepen their knowledge of main market segments. The difficulty of coping with some of the supplier relations may arise from the standing of the Buying Department *vis-à-vis* the rest of the Company which, in its turn, is due to the difficulty of acting as a source of market information when

required. The difficult status inside the Company thus reduces the buyer's possibilities of managing relations with suppliers.

Attempts made to solve this problem consist of adding to the two `line departments' a special R and D purchases department and a Market Analysis staff unit with the explicit task of exposing the engineering functions within the Company to market factors and making them more sensitive about economic aspects of the buying process. The effect of these attempts is not very clear as regards increased market knowledge and it is doubtful whether they can enhance the standing of the Buying Department representatives in the intra-company bargaining process.

The possibility for Purchasing Department representatives to control and manage the relations with important customers is often also limited by the rather centralized control within the Purchasing Department itself (most of the contract conditions being subject to approval or being stipulated only by the two heads of the two line departments). The same may be true of the chosen division of tasks within the department where the delivery progress is followed by Delivery Service people, and means that after issuing an order, supplier contacts are not handled by the `deciding' buyer.

CONCLUDING REMARKS

In this case of an organization with small-batch production technology, the change of supplier and selection of new suppliers seem to be more often than not induced by circumstances inside the Company which are out of the realm of the Buying Department. Potentially, the role of the buyer is that of catalyst or mediator rather than decision-maker. Both lateral and vertical influences are present to a large degree. The possibility of exercising this role of catalyst and mediator is dependent on the status within the Company, not in hierarchical terms, but in terms of market competence. The willingness to try new sources is quite limited unless the actual performance of a supplier is alarmingly insufficient. Specific events in the Company's history though may lead to a focusing of attention at a moment in time to a group of supplier relationships which may be examined and evaluated in detail with consequent changes of suppliers.

The international orientation of sales seems to entail a certain degree of international sourcing through pressure from the Company's client. It is, however, not an easy task to exploit the market knowledge existing within the sales function of the Company even if Purchasing attempted to do so. In the Italian context there seems to be a clear tendency to favour domestic sources because: (a) average buyer's knowledge of foreign suppliers is limited to those who dominate the market; (b) the difficulties of communication are expected to be considerable; (c) it is the commonly shared belief that the domestic supplier is always economically more advantageous as soon as he can master the product technology concerned.

Language problems when dealing with foreign suppliers may direct what would otherwise be the normal pattern of interaction and which may lead to unpredictable consequences. Failure on the part of suppliers to understand some peculiarities of the Italian business context may create a further barrier between the buyer and the foreign supplier.

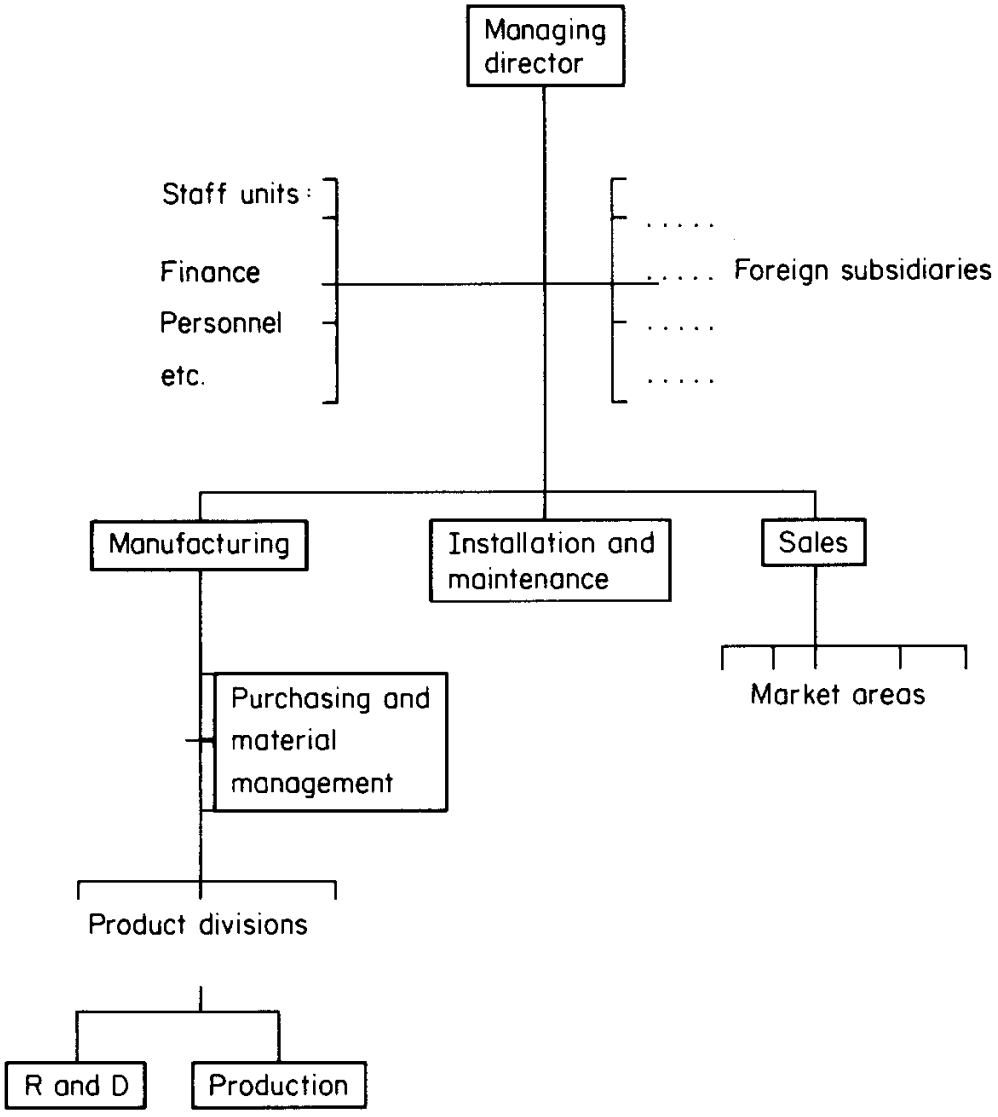


Exhibit 1 Electra organization chart

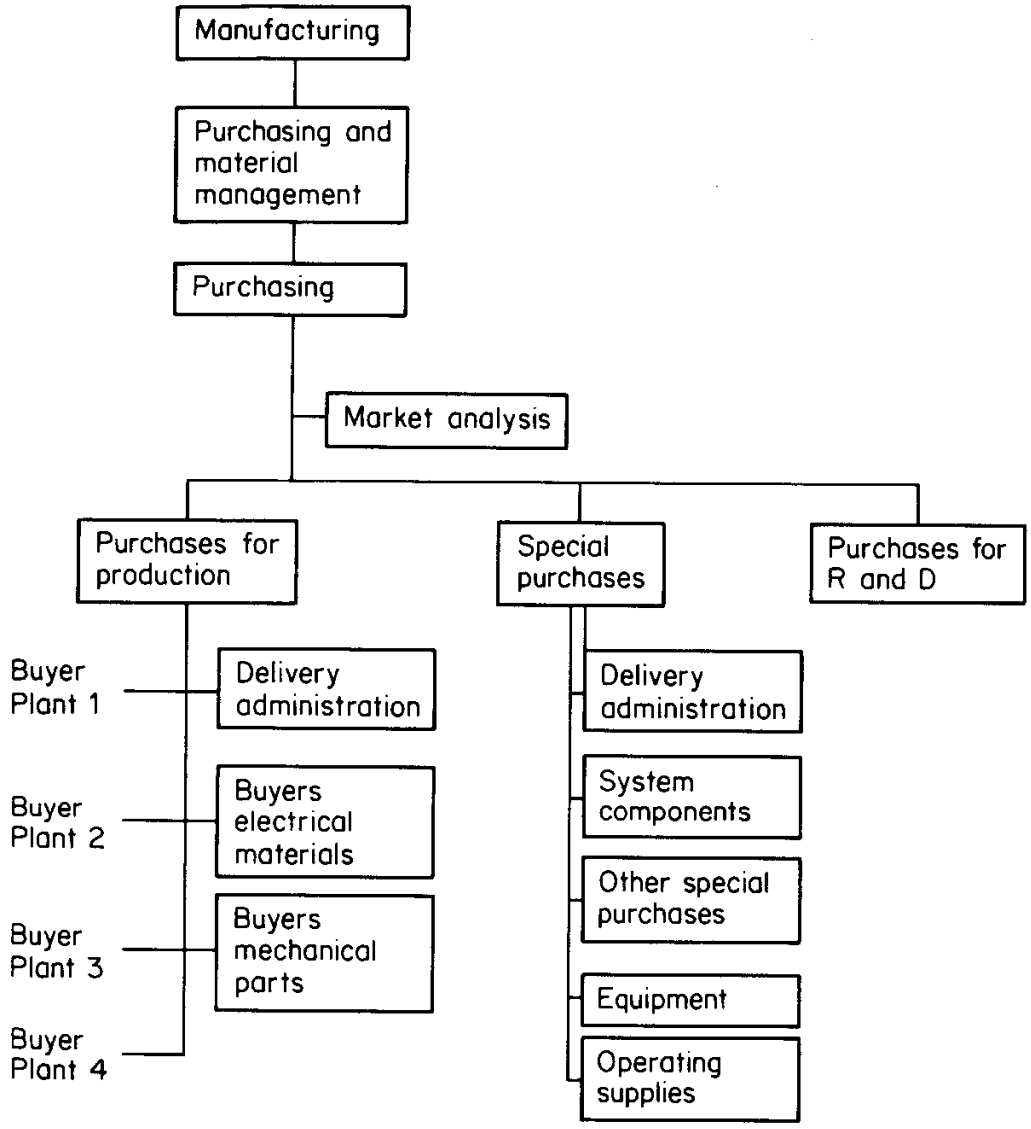


Exhibit 2 The Purchasing and Materials Management Department

ANTRIEBSWERKE AG

Michael Kutschker

INTRODUCTION

This case concentrates on purchasing from one country, namely England. Four business relationships with British suppliers are analysed in order to illuminate the problems which are generally attributed to these relationships.

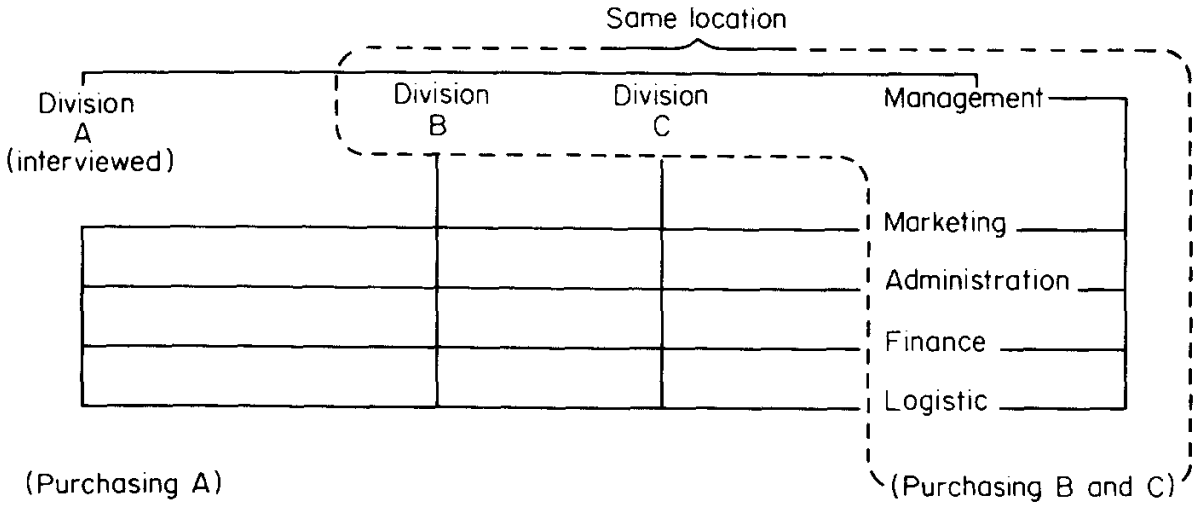
The buyer firm is not typical of the research sample. It has an active modern purchasing system at its disposal which controls standard orders, deadline supervision, and the main burden of stock holding by means of OR-programmes. Definite purchase guidelines, such as the exclusion of the eventual user from purchasing negotiations, facilitate purchasing and give the impression of a modern `resource-management' system.

THE PURCHASING DEPARTMENT OF ANTRIEBSWERKE AG

The firm in question is a division of a multinational company with a turnover of £250 million, with 12,000 employees. It has its own profit responsibility and major independence. It accounts for more than half of the group's entire turnover. The Company has two further divisions which make products for propulsion and equipment construction in fifteen production units spread throughout Germany. Fifty-five per cent of the division's turnover is exported.

The entire corporation is organized on the matrix principles as shown in the diagram below. Central departments support the individual divisions. This case examines the purchasing of Division A. The production and administration of this division is located 500 kilometres away from the group headquarters in North Germany. Divisions B and C are based at the head office location.

Although Division A has its own purchasing department, which is responsible for the procurement of the majority of A's requirements, several products are



procured on their behalf by the purchasing departments of the other two divisions. This arrangement has developed from a work division specialization in the purchasing functions, whereby a purchasing department has acquired particular expertise in certain products and has the responsibility for procurement of those products for all divisions. For such products, the purchasing department concerned has discretion to purchase up to an agreed limit.

The Purchasing Department of Division A has 75 staff and an annual procurement expenditure of £32.5 million. Total purchase value of the division is £50 million. Half of the total volume is imported; 15 per cent from France, 25 per cent from the UK, and 10 per cent from the USA.

We will now examine the purchasing relationships between Antriebswerke AG and four British suppliers. Each relationship is discussed separately and then some general conclusions are drawn.

EQUIPMENT FROM BRIT A

The interviewee is a group manager and responsible for the purchase of industrial goods, especially machine tools. Twenty per cent of his purchased volume is imported from Britain. He speaks fluent English and is a regular visitor to Britain.

The purchased product is an installation which measures the output of the engines manufactured. The purchase value varies between £50,000 and £75,000 according to size. The supplier is a medium sized British firm with approximately 300 employees and a turnover of approximately £6.2 million. The supplier uses a German engineering company as its distribution agent for the German market. The supplier is the only one who can offer this machine type and size. Competitors, who are based in Germany only, offer products whose technology is different and output lower. In the last ten years, a machine was needed every three years. It is absolutely necessary to maintain the quality of this product; if it should fail, the engine, whose power output is being measured, could be destroyed. Punctual delivery is just as important, as delays cause problems for entire development projects and financial losses occur. Previously, a delay of ten months occurred on one occasion. The supplier readily paid a conventional fine. Therefore, the latest machine was ordered with a time buffer of several months, which was promptly exhausted by the supplier. The buyer's general judgement of the supplier results from this: he is characterized as typically English, which means equipped with old machinery, traditional minded, and unreliable, with management still thinking in terms of the industrial revolution.

Antriebswerke AG operates a strict policy regarding contacts with suppliers; only purchasing staff, and occasionally financial staff, are allowed to have discussions with suppliers. The intensity of communication relationships depends on the project, and are mainly channelled through the purchasing department.

The interviewee has contact with the German representative or with the suppliers' respective sales manager or managing director. In all, four persons from the customers are involved in the information exchange with the supplier and representatives, some being the interviewees' colleagues, others coming from the

Finance Department. The interviewee consults the head of the Testing Department regularly, who is also governed by the policy of not being allowed to deal directly with the supplier.

On one occasion however, in order to obtain an improved performance in the product from Brit A, discussions between the representatives and Antriebswerke AG's technicians were permitted. However, the product modification was largely achieved through co-operation with the engineering firm which acts as Brit A's agent. Brit A itself modified the product only slightly.

Although the supplier is criticized as being unreliable, the customer cannot replace it, as he holds a technological monopoly over the customer. Otherwise, a change in supplier would have taken place years ago.

SPECIAL STEEL FROM BRIT B

This British supplier is a minor concern in the steel industry, has 5,000 employees direct contact with German customers, and no distribution system in Germany. The product is a special heat-stable steel which possesses certain quality features which the German manufacturers are unable to offer. Product quality does not cause any problems to Antriebswerke AG, but unreliable delivery performance causes serious difficulties.

Deliveries take place ten times yearly. Brit B is, as yet, the sole supplier of this type of steel. Due to the delivery problems, which were partly caused by strikes, there has been serious consideration as to whether relationships should be established with French suppliers, in spite of poorer quality and higher prices. The contact with Brit B was taken up in 1967 on request of one of the Antriebswerke customers.

The buyer occasionally visits the supplier firm for discussions with the sales manager and the Metallurgical Department, with whom he also communicates by letter and telephone. A further staff member of the Purchasing Department maintains relations with the supplier, where three persons have close contact with the customer. After the initial stages of the relationship, the technicians were excluded from the direct relationship by the customer. The buyers act as the crossroads in the relationship, passing on information to the Material Disposition and Quality Control Departments, or discussing with them problems regarding the supplier.

This business relationship can be graded as routine purchasing, following a turbulent initial phase with intensive information exchange. Apart from the bad delivery performance, this relationship has proved positive.

PRECISION PARTS FROM BRIT C

The product consists of an unfinished casting which is extremely important for the customer's final product. The greatest precision and absolute observation of manufacture tolerances and alloys are essential. Material flaws could lead to the

destruction of the final product. The value of purchases from this supplier is large (E1 million) as a large number of these precision parts are used in the final product. Therefore, Antriebswerke AG is the British supplier's most important customer. The supplier has 500 employees and a turnover of £12 million per annum.

Due to the importance of the product and the business relationship, and in spite of its policy, a number of departments of Antriebswerke AG have an intensive communicative relationship with the supplier. Forty of the customer's staff and twelve of the supplier's staff conduct a constant exchange of information, in order to achieve technical improvements, to solve problems which emerge, and to co-ordinate selling plans. However, the Purchasing Department retains the leadership, as shown by the fact that the group manager interviewed is in contact with eight of the twelve persons from the supplier, and visits the supplier personally twice yearly. Members of the Purchasing Department and the Production Department visit the supplier monthly, whose sales manager, in return, visits the customer three to four times a year. At the customer's instigation the supplier established a sales office with two representatives in Germany, one of whom is in constant contact with the customer.

It is mainly due to the product and the technical problems related to it, that such an intensive collaboration is imperative. Each quality and technical improvement in the product purchased is immediately realizable in an improvement of the final product. At the start of the relationship (1973) the desired quality was not reached, which meant that the final product had to be altered. In the course of the years, the customer was able to draw the supplier up to the required quality standards which led to an acceptable, but not maximum, quality level. The relationship can be interpreted as a mutual technological adaptation process, in which the customer's wishes are occasionally ahead of the suppliers' technological facilities. It is mainly the supplier's readiness to partake in the continual innovation process which secures him business against his competitors, for fifteen firms exist world-wide who could also produce this product. This competition is used as a means of putting pressure on the supplier in price negotiations. In fact, the price concessions won prove that this means is efficient. Although a change in supplier would take approximately two years, the customer (by early dual-sourcing) has managed to prevent Brit C from acknowledging its powerful position.

The second supplier is a large German concern which delivers 60—70 per cent of the necessary parts. The exact turnover division between both suppliers varies according to price, in which the German supplier seems not quite so ready to concede as his British counterpart.

Despite the strong mutual dependence which exists between Antriebswerke AG and Brit C, Antriebswerke AG has used its demand power over Brit C to obtain substantial advantages in the form of technological and commercial concessions. On the other hand, due to Brit C's poor delivery performance, Antriebswerke AG has to accept the risk of unreliable delivery and, as a consequence, has to maintain an uneconomically large stock level.

STANDARD COMPONENTS FROM BRIT D

Brit D is a large concern with 4,000 employees and a turnover of approximately £50 million. Antriebswerke AG buys products from Brit D which are similar to those from Brit C in their application, but which require a different alloy and far less precision. The technology poses few problems. The product, which accounts for 2 per cent of the purchasing volume, can be obtained, therefore, from six suppliers. Brit D supplies approximately 10 per cent. This portion is steadily decreasing since the business relationship was formed in 1964, and experienced a drastic drop in 1972. This regression has several causes: the number of competitors increases steadily so that new suppliers are taken on as sources. Brit D's performance as a supplier proved to be extremely poor, which led to the turnover with Brit D being cut by half in 1972, and to a German supplier being taken on; Brit D overestimates its market position, and is not prepared to make price con-cessions, unlike the German competitor. Thus, Brit D has fallen from its original dominating position to that of reserve supplier, and it now only serves to fulfil Antriebswerke AG's policy of `having a bridgehead abroad'.

Brit D attempted to improve on this miserable situation by employing an independent representative, who, however, was only seen as a `faith healer' for the problems caused by Brit D. The customer has lost interest in Brit D and this makes itself obvious in the frugal communication relations which now exist.

CONCLUSIONS

The Purchasing Department of Antriebswerke AG pursues a policy based on the principle `buying is marketing, too'. That is, new supplier resources are actively sought. Active resource management is practised. In this role, the purchasing department as a central department (function) is supported by its positioning in the organizational matrix format. This guarantees an exclusion of the production function from sales negotiations. The suppliers are, therefore, not permitted to contact the production and development departments at their will.

Twenty-five per cent of the purchasing volume is drawn from the UK. This import fraction, which is unusually high by German standards, springs from certain capital entanglements with British firms, but mainly from the technological advantage which British firms have in certain products. This advantage over other suppliers (e.g. German) is diminishing.

The high purchasing volume in Britain proves that the interviewees had a profound knowledge of the British suppliers. The analysis of the four business relationships as well as the analysis of the image that the interviewees had formed of British suppliers, shows clearly that it is mainly the poor delivery morale which influences the purchasing pattern with British suppliers. Poor delivery morale displays itself in bad contract loyalty, inconsistent product quality, and above all in failing to meet delivery dates. Such impressions quickly lead to prejudices and stereotyping. The documentation of the opinions expressed in this case could con-tribute to the understanding of why such prejudices are formed and why they exist.

TEXIMAC — The Multiple Sourcing Purchasing Policy of a British Machinery Manufacturer Dealing with German and UK Component Suppliers

Malcolm T. Cunningham

INTRODUCTION

The case study is concerned with the purchasing by a machinery manufacturer of high value and technically complex components from two German and one UK suppliers. It focuses attention upon the way in which customers and suppliers interact and adapt to each other. Of special interest is the situation in which harmonious and stable relationships between a customer and one supplier do not overcome the over-dependence which the customer feels towards the supplier. The case study points to the alternative purchasing strategies being pursued by the customer to alleviate this predicament.

THE COMPANY

`Teximac Ltd.' is the machinery division of a large UK group of engineering companies. It employs over 3000 people at four manufacturing sites and has a sales turnover of approximately £50m per annum, of which 80 per cent is exported. The Company has an international orientation, both to its marketing and purchasing activities. On the marketing side, it sells to over 40 countries around the world with the less developed areas of South East Asia, Middle East, India, Africa, and South America accounting for most of its sales. Being in the capital goods industry, it is frequently involved in negotiations with governments for the design, supply, and commissioning of integrated processing plants in these countries and has developed an organization capable of marketing and constructing the machinery on a world-wide basis. When selling to some countries, attempts are made by customers to have a substantial part of the contract capable of being supplied from their own country.

Teximac's response is to insist on its own machinery being built in the UK using existing suppliers, but to integrate local labour with its own specialist engineers in the construction and initial running of the plant.

Purchasing Orientation of the Company

Teximac buys goods to the value of £15m per annum, which is 30 per cent of sales revenue. On average, the purchases are made up of £3m per annum, on equipment for its factories, £8.5m per annum, on components for its machinery products, and £2.5m per annum, on raw materials for production consumption. The Company has an international approach to purchasing in so far as it buys £ 1.75m per annum (or 12 per cent) of its supplies from overseas. Regular purchases made directly from the five European countries researched are as follows:

UK	£ 1Om p.a.	All categories of items
Germany	£ 1.5m p.a.	Special components
Sweden	£0.02m p.a.	Special steels and powders
Italy	£0.01m p.a.	Special steels
France	£0.005m p.a.	Electrical components

Additionally, extensive purchases of capital goods are made for factory re-equipment on an infrequent basis and for this purpose German, Swedish, Italian, and Swiss suppliers are used. Also, purchases of standard components through agents are made from Japan and Germany to the value of £28,000 per annum and £38,000 per annum respectively. The proportion of overseas purchases is stable and, although there is some switching of orders between suppliers, in the last year less than 2 per cent of the company's purchases came from new suppliers.

The supply market for most raw materials such as steel sheet, rolled sections, and plate is one in which there is overcapacity, short lead times, and discounting of prices by UK and overseas suppliers.

For components there is ample capacity around the world and supplies are easy to obtain, particularly where suppliers are specialists to Teximac's industry, which itself is operating at only 50 per cent of capacity. The company does now envisage some significant changes in specific aspects of its overseas purchasing policy, but encounters no major supply problems in sourcing from Germany, Italy, and Sweden. The principal cause of anxiety is the fluctuation in currency, particularly in relation to Germany and Switzerland. German suppliers are paid in DM on 125-day bills, but Italian suppliers require payment in Swiss francs. Forward currency contracts are made, but supply contracts are usually on the basis of individual orders, rather than ones covering long time periods.

Teximac's overseas purchasing policy is affected by the reputation of various supply countries which permeates down to specific suppliers. Engineers in Teximac who design the machinery are readily persuaded of the technical excellence of German and Swiss products. Production staff in Teximac quickly accept a German supplier as being disciplined and able to deliver high quality goods on time. The Company is heavily biased towards Germany as a source of supply, though is becoming increasingly concerned about its dependence upon one particular German supplier. It is readily admitted that buyers can be unduly influenced by the attractiveness of visits to suppliers in overseas countries, particularly those whose factory environment is modern and in a pleasant location where business can be combined with pleasure.

Purchasing Organization

Teximac employs a Purchasing Manager (who reports to the Divisional production director) and 9 buyers, assisted by 4 clerks and typists. The organizational structure is based upon specialization in types of goods bought. Three sub-sections, comprising a chief buyer and two assistants, are each responsible for

complex electrical and mechanical components,, for raw materials and standard components, and finally for capital goods and non-productive items.

Design engineers specify the characteristics of the items to be bought, production controllers determine the volume and date required, whereas purchasing decide on the source of supply and the price to be paid. Choice of supplier is often limited by the design specification of the item.

THE DEVELOPMENT OF MULTIPLE SOURCING OF A HIGH TECHNOLOGY COMPONENT BETWEEN THE TWO GERMAN AND ONE BRITISH SUPPLIERS

The component under investigation is a very high technology item bought by Teximac Ltd. in quantities of approximately 750 per annum at a unit cost of £ 1000 each. It comprises the most important part of the machine made by Teximac and accounts for 20 per cent of the final machine cost. The idea was orginally developed in Southern Europe by an engineer who emigrated to the UK and established his own small company `Mintoff Ltd.'. This company sold the components to machinery makers in the UK and also as modifications to machines in operation in the Far East. The Company remained small and did not expand capacity to meet world demand. A German supplier `Faktotum' (part of a large international group but of non-German origin) took up the idea and developed it. Subsequently, the German designer left the company and joined `Drangfabrik', a German manufacturer with extensive sales to the machinery industry. Both German companies have developed the product and expanded to meet demand from machinery makers around the world. Both have licensed their products to Japanese and `Comecom' manufacturers.

Market Structure for Supplies

Teximac buys 65 per cent of its supplies of this component from `Faktotum', 25 per cent from `Drangfabrik' and 10 per cent from `Mintoff'. There are 6 potential suppliers of this component in the Western World; these being 3 German, 2 Japanese, and 1 British manufacturer, together with 1 French and 1 Italian supplier, who only supply to machinery makers in their own countries. The two German and one British firm account for 90 per cent of sales to UK machinery makers. Three UK machinery manufacturers (of which Teximac is the largest) account for over 90 per cent of purchases of these components in the UK.

Characteristics of the Three Suppliers

'Mintoff' is a very small UK supplier with family ownership specializing exclusively in this and closely related products for this branch of the machinery industry. It has a very high reputation for its technological ability and innovativeness, but remains too small to be capable of supplying all machinery

makers or all the demand from `Teximac'. The firm limits it supplies exclusively to original equipment makers (OEM) for new machines and for converting existing machines in operation around the world to incorporate the component.

Faktotum' is a medium sized company operating as the German subsidiary of a foreign internationally orientated group with a world-wide reputation in this product field, but for whom this particular product represents only 5 per cent of its output. It is the world leader and supplies directly to OEM companies such as Teximac, for new and conversion machines. Three customers in the UK, Germany, and Japan, purchase 30 per cent of the Company's output of this product. The Company employs 2500 people and has a sales turnover of about £20m per annum Faktotum is perceived by the buyer as being purposeful, professional, and somewhat bureaucratic. Its decision-making is centralized and occasionally autocratic. It is well run and tightly controlled. Responsibilities of staff are very clearly defined. The local sales representative has little authority to decide on anything and top management approve pricing decisions. The selling staff is highly competent both technically and commercially. The customer has very limited opportunity to have direct access to the supplier's technical specialists. The supplier is not flexible in accepting changes to delivery requirements.

*`Drangfabrik' is* a medium sized German company specializing in this and related product fields. It has an output comparable to that of `Faktotum' for this product. It is technically competent and commercially very astute.

It responds very quickly to commercial opportunities and its strength lies in its policy of selling to the end-user and persuading him to specify his product in the machine. The company is not scrupulous in its marketing by virtue of its willingness to sell direct to the end-customer for spares and replacements and to not always comply with patent protection.

Relationship with the Three Suppliers

Teximac is heavily dependent on this component for the functioning of its machinery and finds all three suppliers technically comparable. Customers may specify the supplier of the component, but Teximac tend to sell the Faktotum designs more readily. The price of the two German suppliers are almost the same, but higher than the UK supplier. Teximac having moved supplies 25 years ago from `Mintoff' in the UK to `Faktotum' in Germany because of the capacity restrictions of `Mintoff', subsequently have split overseas supplies between the two German manufacturers and have recently placed substantial orders with `Drangfabrik' to keep both German suppliers competitive. The policy of Teximac is to encourage both, but there is no real loyalty to either supplier; in fact it wishes to share its orders on a 50/50 basis between them. This policy is set within the context of the Company buying other major components from these two German

suppliers. The Company's relationships with its two suppliers are quite noticeably different.

With its principal supplier `Faktotum', relationships are pleasant, but not personal. There is complete trust at all levels in both organizations and the supplier performs both to the letter and spirit of the business contract. The supplier is extremely powerful all over the world and its wide product field, outside this component, gives it a high reputation and negotiating strength in its dealings with competing machinery makers and with end-user customers.

In contrast, relationships with the more recent supplier `Drangfabrik' are based on good social contacts with the professional management (who are liked and trusted) but there is a lack of trust and no liking for the owners. Their policy of selling to Teximac's own customers is a cause of friction and the supplier will perform to the letter, but not the spirit, of any contracts. Yet commercially, Teximac encourage them as a supplier.

Relationships with the UK supplier `Mintoff' are quite good, business-like and at top management level. The supplier relationship here is not so vital to Teximac as those with the German suppliers and have been affected by moves in the past for Teximac to attempt to acquire the assets of Mintoff.

Contact Patterns Between the Customer and Suppliers' Organizations

The customer considers that face-to-face meetings and close interaction with its major suppliers are vitally important. It enables the customer to keep abreast of new technical ideas and to promote joint product development. The customer feels better equipped to control the activities of a supplier who behaves in a manner which annoys the customer. Close contacts help facilitate changes in the volume and delivery of orders already placed. Furthermore the customer is able to understand the mentality, systems, organization, and style of a supplier's operations.

However, where this customer believes that a supplier has a technical monopoly then that supplier may become complacent and lack the motivation to be competitive and flexible. Nevertheless, `Teximac' prefer to keep their relationships with suppliers at `arm's length'. Their purchasing power must be exercised and negotiations conducted in a business-like manner, without undue personal bias. Thus, Teximac deliberately tries to shake a supplier's complacency.

Teximac operates on the basis that contracts can only be concluded between people, though legally they are made by organizations. A supplier should seek to establish contacts with members of a customer's decision-making unit, but must not break the rules and protocols of the customer. The inter-organizational contact pattern should facilitate these objectives and constraints of both supplier and customer. However, the customer must guard against social contacts over-riding professional judgement and ethics.

In the case of Teximac and its 3 major suppliers for these high technology and high value components, the Purchasing Department visit the suppliers in

Germany and the UK once each year. On such occasions they meet sales, design, and production staff at senior management level both on a business and social basis.
There is also a formal visit from the German suppliers twice a year which comprises the supplier's Western European Sales Manager, and the local sales representative. They meet the customer's Buyer, Chief Buyer, Chief Designer, and Divisional General Manager.
Approximately every 2 years, the Chief Sales Executive of the German supplier will visit the customer in the UK and will be accompanied by his area sales manager, local representative, and Chief Designer.

The suppliers employ their own representatives to sell to the UK. `Faktotum' have 4 sales representatives located in one of its UK distributor's offices. These salesmen are able to keep in regular contact twice a week with Teximac designers, buyers, and production staff answering technical queries, obtaining market intelligence, and undertaking liaison with the German factory on any supply problems. They identify end-users of Teximac machines and try to get them to specify their own company's components. `Drangfabrik' employ a UK sales engineer.

Personal preferences and past experience of end-users determine their specification of a component supplier. There is very little to choose between them on technical and price grounds. With developing countries, it is most likely that bribery and commissions play a large part in the decision as to which supplier to specify. All suppliers have an adequate world-wide service and spares organization.

Deliveries to Teximac are made on a weekly basis from overseas and UK suppliers, though orders of 20 to 150 items at a time are placed in accordance with contract sales of the final machinery.

Adaptations

In the course of several years working together, various adaptations have been made by `Teximac' and its suppliers. As an example, the adaptations between Teximac and its principal supplier `Faktotum' are summarized.

`Teximac' designs new machines in full consultation with `Faktotum' and the supplier designs special components for the customer. Whilst Teximac have made no adaptations to production processes or stockholdings, `Faktotum' carries stocks of components in Germany for this customer, has reduced his delivery lead time from 16 to 12 weeks, and manufacture for stock against only a forecast of demand. In the field of information exchange, `Faktotum' occasionally provide hints on new machinery sales likely to be made by Teximac's competitors and supply general market intelligence. The supplier is required to give 6 months advanced warning of impending price increases and `Teximac' warn the supplier of the need to reduce prices on new contracts which Teximac is negotiating with end-user customers. In pricing matters, `Faktotum' have conceded an 8 per cent volume discount and also a 5 per cent price reduction over the past 2 years. They

have accepted Teximac's payment on 120-days bills of exchange instead of their normal terms of 60 days settlement of invoices.

As can be seen, the major adaptations in a commercial sense have been made by the supplier in return for being the preferred source of supply and influencing Teximac's design policy.

CONCLUSIONS

This illustration of the multiple sourcing policy of companies draws attention to the factors which may precipitate the use of more than one source of supply for a strategically vital component. By this policy, the customer reduces his dependence on one supplier and spreads the risks of disruption to his supplies. Dual sources also provide the customer with bargaining power in price negotiations. **In** the case of Teximac, however, it is apparent that the capacity limitations of the first supplier led to dual sourcing. Thereafter, the transfer of technical know-how from one German supplier to another, due to the movement of the chief designer, led to a triple sourcing situation.

Changes in the share of business given to each supplier reflect the pressures from final customers who specify the component supplier, as well as the short-and long-term bargaining approach of the buyer to improve his purchase costs or delivery dates. The customer perceives the three suppliers as quite different from one another, and the current situation on multiple sourcing reflects the interplay between their various criteria on supplier choice.

Supplier	Duration of business relationship	Percentage share of orders
Original UK supplier	30 years	10%
First German supplier	25 years	65%
Second German supplier	5 years	25%

There is a dynamic facet of business and of relationships. So, although the supply situation is satisfactory in respect of design, delivery, and quality reliability, the customer is anxious to change this. Prices from Germany are 20 per cent higher in comparison with the UK supplier and currency fluctuations make long-term contracts difficult to negotiate. Despite general relationships with all three suppliers being satisfactory, they are by no means ideal. The UK supplier is too small to take more orders; the first German supplier is too powerful inter-nationally and the customer finds itself too dependent on him; the second German supplier is commercially difficult to control and to trust, due to his activities in selling direct to Teximac's own customers and infringing patents.

The alternative supply solutions which Teximac is actively pursuing are:

(1) Acquiring and developing the UK supplier `Mintoff Ltd.'

(2) Persuading a major UK competitor of the principal German supplier `Faktotum' to invest in the manufacture and marketing of these components.
(3) Manufacturing the components themselves to secure high value added production orders and to utilize surplus capacity, which now appears to be *a* permanent feature of the industry.

In this case study, the buyers are more aware than the engineers of the dangers of social exchange arising out of collaboration between the two organizations. The machinery on which the component is used is sold by Teximac on infrequent but large contracts to a wide spread of markets. Yet the importance of the component to Teximac, together with its high technological nature and regularity of delivery supplies, requires an extensive interaction between the organizations of the companies buying and selling. The close interaction between functional staff in the participating organizations is seen to have both benefits and dangers to the customer. The customer prefers close personal contacts, but not at the risk of biasing judgement in allocating supplies. Visits to suppliers have a pay-off in terms of a pleasant trip abroad, but commercial decisions must not be impaired as *a* result. Technical information must be exchanged, but no preference given to any one supplier.

It is interesting to observe that all the key staff in the customer organization are favourably biased towards German suppliers, but `business is business' and the objectives of the customer are likely to override these considerations.

The commercial bargaining power of the customer emerges in this case study. The customer and the suppliers have undertaken joint product development and considerable adaptations have occurred as business has developed. The major adaptations have been made by the supplier, especially in commercial matters. Those adaptations made by the major German supplier have reinforced the business relationship, but still the customer is seeking to find an alternative solution to its supply needs to reduce his dependence on this supplier.

SALKA LIQUID TECHNIQUE — Purchasing of Material and Components

Jan Johanson

INTRODUCTION

Looking at purchasing as management of external resources, it might be useful to distinguish between the efficient current use of the external resources and the development of those resources. In the rigid production technologies (mass and process production) the two tasks are usually separated. Current purchasing aims at maintaining an efficient production system and is clearly coupled to this system. Technical development takes place in a separate development system - design - which aims at discrete changes in the products and the production

system. The corresponding activities aiming at the development of the external resources is coupled to this development system. The more complex or specialized the production system the more clearly the two tasks are separated.

In a unit or small-batch production system, which is more flexible, the two tasks are usually not as clearly distinguishable. Technical development will affect the production system more continuously, or at least in small steps in connection with the new batches. The corresponding development of the external resources will also be more integrated with the current purchasing activities, especially where the supplier's production system is less rigid. If the technological development is slow this integration will be easy to implement and the development process will play a very secondary role. If there is a rapid technological development, however, it will be more difficult to attain the required integration between development and efficiency in current purchasing. Thus, we can expect more complex inter-organizational structures to evolve.

THE FIRM — SALKA LIQUID TECHNIQUE

In this case four supplier relationships of the Swedish engineering firm, Salka Liquid Technique, will be described and discussed. Salka Liquid Technique is a division of the Swedish multinational Salka Engineering, which in its promotional literature describes itself as innovative and technologically advanced, with a broad R and D programme, and world leader in several fields. Some of Salka Liquid Technique's products are examples of such leadership. Salka Liquid Technique specializes in the design, manufacturing, and marketing of equipment for handling of liquids. It manufactures a number of different products. Some of them are manufactured in units or very small batches, whereas others are manufactured in large batches. The products are used in a number of different industries. The dynamics of the product technologies are also very different. Some of them are fairly stable, whilst others are developing rapidly. But on the whole, as mentioned above, Salka emphasizes product design and development.

The Salka Liquid Technique division is composed of seven sub-divisions, each one organized functionally with separate departments for marketing, manufacturing, and design. In the manufacturing departments there are material administration groups with purchasing units employing 1—4 purchasers. There is also a central division staff with departments responsible for quality control, purchasing, production, and engineering. In the central purchasing department there are 10 purchasing specialists. They are responsible for the strategic aspects of purchasing such as research on new suppliers, establishment and development of long-term supplier relations, and co-ordination of purchasing in the seven sub-divisions. The purchasing units within the sub-divisions are responsible for operative purchasing activities.

The purchasing value of the liquid handling division is around 300 million Swedish Crowns (9 SwCr approx. = £1), which is about 70 per cent of the production value. The value of equipment purchases is 40—60m kr, components and parts 100m kr, and of raw and process material 150m kr. Of the purchases to

the Swedish manufacturing unit 25—30 per cent is imported. They are striving to increase the import share; it was 21 per cent five years ago and it will become still higher in the future. Excluding equipment, 4—5m kr of the Swedish purchases is bought from France, 7—10m kr from West Germany, and about the same amount from the United Kingdom and less than 100,000 kr from Italy. They plan to increase purchases from France and the United Kingdom and feel that the talk about labour market problems in UK is exaggerated. They evaluate each supplier's own capability. Language is a problem with French business relations, but as a buyer, Salk a has the advantage of choosing the language of negotiation. When they contact new foreign suppliers the choice between direct contact and contact via the representative in Sweden is based on a technical judgement from case to case.

SUPPLIER RELATIONS

Four supplier relations are described and discussed in this case. Two of them concern steel sheets and rubber gaskets which are used in the same product. In fact, the product is almost entirely made up of those two inputs. It is built up of individual, parallel, corrugated plates separated by rubber gaskets. The product is manufactured in small batches in one of the sub-divisions and is sold to a number of different industries. It is used for energy saving and the demand has risen rapidly in recent years at the same time as the product technology is rapidly developing. In particular, the rubber gaskets are developing due to the very dynamic polymer technology. Salka is a world leader in this product field.

The other two supplier relations concern two different components used in manufacturing two different products. One is a long established Swedish supplier manufacturing precision castings, which are important components in a product manufactured in rather large batches. The other is a new French supplier of rolled rings of stainless steel for a product which is manufactured in units. These are rather stable technologies and Salka is considered a world leader even here.

The Stainless Steel Sheet Supplier — Stahlwerk Grete AG

The stainless steel sheet supplier is a big German special steel producer, which belongs to a giant, very internationally oriented group. It has a big Swedish wholesaler as representative in Sweden, but Salka buys direct from Germany. Stahlwerk Grete has been Salka's sheet supplier since 1970. They had tried since the middle of the sixties to obtain a part of Salka's business, but did not succeed until the nickel crisis around 1970. For several years they have also supplied stainless steel bars to Salka.

The quality of the steel is of specified Swedish — and international — standard, which is not a standard of the supplier. Other Swedish buyers buy the same quality (AISI 304 and 316). Salka buys sheets over 900 mm wide from Grete. Other dimensions — which represent 80—90 per cent of Salka's need — are mainly bought from a Swedish supplier. Of the purchases of the wide dimensions 80—90

per cent are bought from Grete, the rest comes from one Swedish and one German producer. The value of the purchases from Grete is 1.5–1.75m kr.

Important characteristics of the steel is corrosion resistance and stamping properties. It is cold stamped and the area enlargements are big. Deficiencies with regard to corrosion resistance are detected after use and lead to complaints, and problems with regard to stamping lead to rejection in production. Salka is very dependent on the delivery reliability and delivery time, which influences stock levels and delivery times to their customers. Two-thirds of Salka's delivery times are less than 12 weeks, manufacturing takes 4–5 weeks and normal sheet delivery time is about 4 months. Deliveries are made every second month.

Very little adaptations between the producer and the user have taken place. The analysis of the steel is not according to Grete's standard and the sheets are cut according to Salka's demands, which means a more narrow tolerance than DIN-standard. Grete has developed a haste alloy (sulphuric acid resistant steel) partly for Salka, but on their initiative. Grete has some dimensions of strip in intermediary stock for Salka, and Salka has adapted their stocks and order routines because of the longer distance to Grete than to the Swedish procedures.

Five to six persons from Salka are in contact with Grete's personnel and 7–8 persons from Grete are in contact with Salka. The interviewee, who is a purchaser in the sub-division, has contacts with 4 persons, two salesmen (negotiations), technical service (contacts for Salka's quality control), and the metallurgy laboratory manager. Visits are made to Germany once a year, but the quality control group had more intensive contacts during the establishment stage. Other Salka staff with important Grete contacts include the purchasing manager and specialists in stamping and corrosion technology.

The Rubber Gasket Supplier – Betty Rubber Ltd.

The rubber gasket is a vital component and potentially the weak link in the design. It is bought from three different suppliers – two of them Swedish and one British. The British supplier – Betty Rubber Ltd. – supplies about 20 per cent of the need. It is middle sized, has about 200 employees and belongs to a British firm which is part of a US group. It has no representative in Sweden, contacts are made direct between the two firms. Betty was characterized by the interviewee as co-operative, competitive, and flexible, having an acceptable technological level and a well developed technical administration.

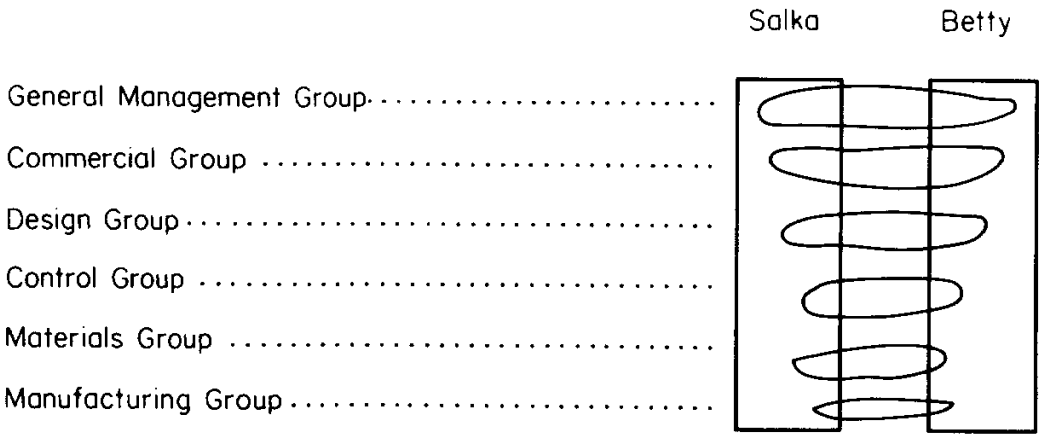
Contacts with Betty started during 1970–72 and developed very slowly at first. The first batch deliveries were made in 1974–75, volume deliveries started in 1976, and they are now doubling each year and the same rate of increase is expected in the future. The value of the purchases is now about 2m kr. However, Betty is still the smaller of the gasket suppliers. The same type of co-operation which is described here had earlier been developed with the Swedish suppliers. These relationships with Swedish suppliers had been much easier to establish, not because of any fault on the part of Betty, but because of the distance involved.

Important properties of the gaskets are dimensions, elasticity, hardness, ageing,

crack resistance, temperature resistance, and chemical resistance. Some of these properties are important from a functional point of view and some are important from a production point of view – on one occasion dimension problems caused an internal rejection rate of 50 per cent. Polymer technology is developing rapidly and the ability to specify the required properties are limited. Thus, specifications are incomplete. The properties required of the gaskets depend on a number of factors such as the liquid which is flowing, the temperature of the liquid, the pressure, etc.

From an economic point of view, reliability of deliveries is very important. It is expensive to keep stocks of the gaskets. Special qualities are manufactured against order and then delivery lead time is very important. Deliveries are made twice a month.

Within Salka a formal inter-departmental group has been formed to develop co-operation with the gasket suppliers. This group consists of personnel from general management, design, materials laboratory, quality control, purchasing, planning, and manufacturing. Salka has encouraged the suppliers to form corresponding groups and the co-operation with Betty is formalized in a main inter-organizational, inter-departmental group headed by a general management sub-group and is composed of a number of sub-groups with persons from different functions in the two firms as shown in the figure below:



Formal meetings with the whole group take place twice a year. Meeting sites are alternated between the firms and a formal protocol is maintained for follow-up purposes. At the same time, informal contacts occur continuously between the persons in the sub-groups via telephone, mail, and frequently in person. The most common pattern of communication is between appropriate sub-group members on a need basis; in other words, laboratory specialists work with laboratory specialists, etc. They have also agreed on a conflict resolution procedure, involving the commercial and general management group executives. The interviewee, who is purchasing manager in the central staff, has been responsible for the development of the relations with the gasket suppliers and is now responsible for co-ordinating co-operation with them.

He estimated that 15 persons from Salka have been in contact with Betty personnel – 6–7 of them have been in England. About 10 from Betty have been in

contact with Salka staff. The interviewee himself, however, had been in contact with 100—200 persons from Betty. He has important contacts with their managing directors (long range matters), sales director (contracts and co-ordination), sales manager (current commercial matters), planning manager (systems development), manufacturing manager (production adaptation), production planner (production programmes), administrative manager (information routines), control manager (control routines), and machine operators.

The purpose of the formalized co-operation with the gasket suppliers is to encourage mutual adaptations and development of competence. A number of adaptations have taken place. Firstly, Salka's product is developed in co-operation with the suppliers, and the gaskets are produced according to Salka's specifications, some qualities being produced for Salka exclusively. So far Betty has not developed any new product for Salka, but they wish to and one of the sub-group's aims is to develop such a new product. In the same way, the production processes of the firms have been adapted to each other. Salka has a number of non-standard demands, which have forced Betty to introduce production process adaptations and, because of increased precision of dimensions, Salka has been able to substitute mechanical for manual attaching of the gaskets. In the planning sub-group, mutual adaptations of production planning takes place. The supplier also maintains extra stock in order to smooth production variations of Salka. Betty has furthermore adapted their packaging according to Salka's demands. Finally, Salka's rigorous demands on quality control have led to revolutionary changes in Betty's quality control procedures.

The French Supplier of Stainless Steel Rings — Acier Fifi SA

Salka buys rolled rings of stainless steel in very big dimensions — 1—2 m in diameter — from a French ring producer Acier Fifi SA. It has between 400 and 500 employees and exports about 30 per cent of its production. In Sweden, it is represented by the joint sales company of the French steel industry. Only one person there works with Fifi's products and almost all of Salka's contacts are made through him.

The interviewee, who is the purchasing manager in the central staff, said that Fifi behaves very well, has a good delivery record and that there is seldom need for product complaints. Otherwise he knows very little about the firm.

Salka buys approximately 400 rings per year and their average cost is around 1000 French francs. The value of the purchases has been rather constant since the business started in 1971 and no changes are expected in the future.

The rings are important components in a piece of chemical process equipment, which is manufactured in units. The important properties are dimensions, tolerance and surface finish. They have to be well balanced as they rotate very rapidly and there must be no accidents because of imbalance. A smooth surface finish requires little processing and means good production economy. Delivery time and reliability is important and Fifi meets this requirement well. Deliveries are made 15 times per year.

The rings are made according to Salka's specifications which accord with Swedish standard. No other adaptations have been made by Fifi. Salka has been able to reduce its processing of the rings thanks to the fine surface finish of Fifi's rings. Salka also keeps intermediary stocks, but Fifi has been prepared to deliver very rapidly when required.

Very few persons in either firm have been in contact with each other. The interviewee and the sub-division purchaser have contacts with the supplier's representative in Sweden. He has also had contacts with Fifi's general manager and export manager, once in connection with price negotiations, and with their production manager.

The Supplier of Precision Castings — AB Svea Gjuterier

Precision castings are used in batch production of another item of chemical process equipment. Forty per cent of castings are bought from Svea Gjuterier, a Swedish firm with an international orientation and 40 per cent from Norway and 20 per cent from Australia. The value of the purchases from Svea is around lm kr.

The relationship is long established, Svea Gjuterier has been Salka's supplier at least since the fifties. In the middle of the sixties, however, Salka started buying some of the castings from a small Swedish competitor to Svea. In 1973, during the scarce supply period, Svea had delivery problems and Salka transferred all their castings purchases to the small competitor, which, a short time afterwards, was taken over by Svea. When Svea took over this firm, Salka demanded that their castings should be manufactured in the smaller and more flexible plant.

The product is made according to specifications with regard to form and quality. The specifications were originally developed in co-operation with Svea which required very intimate co-operation between the companies. It is very important to have a high quality of surface finish of the castings, to ensure that the finished product does not collect dirt in the process. A bad surface would mean bacteria collection which would not be accepted by the Public Control Authorities and would damage Salka's goodwill.

Delivery times and delivery reliability is also very important. Salka has cyclical production in the plant with a cycle of 3 weeks which requires a 3-week safety stock. The number of deliveries per year vary depending on the value. High value dimensions are delivered 16 times per year and low value dimensions once per year. The supplier has adapted their batch sizes to Salka's production cycles. When the production cycles do not match, Svea must keep stock. Also, uncertainty in the quality of the output means that Svea has to maintain a safety stock.

Ten persons from Salka have contacts with Svea's personnel, and 5—6 persons from Svea are in contact with Salka. The interviewee has been in contact with Svea's divisional manager in price negotiations, with the sales manager, the production manager for handling of complaints, and with planning when deliveries are late.

In Salka he is in contact with purchasers in the affected sub-division and with production managers there. He is also in contact with design engineers, production engineers, quality control, and subdivision managers on matters relating to Svea. The subdivision purchasers, production managers, and the design engineer also have contacts with Svea. On the whole the contacts have been very good, they respond very rapidly to all problems, especially the personnel in the small plant.

CONCLUDING REMARKS

The four relationships differ with regard to the interaction processes. The intensity of the interaction with Betty is very high, both parties have made a number of important adaptations, the information exchange involves a number of functions in the two firms and it takes place directly between specialists of the firms. It concerns current purchasing as well as long-term development of the relationship. A formal inter-organizational structure has been developed on the initiative of the buying firm, which is an indication of their long-term intentions with the relationship. It is worth mentioning that similar structures have been developed together with the two Swedish suppliers of rubber gaskets and that, with regard to social exchange, the Betty relation is not as successful as the two corresponding Swedish relations, which was explained by the difference in distance. It seems that the rapid and differentiated technological development, in combination with the critical character of the rubber gaskets, are the main factors behind the extremely intensive interaction process.

The Betty relationship can be compared with the Grete relationship which serves the same product. The relationship with Grete is not at all as close, there are much fewer functions with direct contacts and the adaptations are much less significant.

Compared to polymer technology, the steel technology is very stable, and the production technology of a large sheet mill is rather rigid and is not suited to adaptations and close co-operation with buyers. It is also worth noting that Salka's purchases are probably much more important to Betty than to Grete. Salka has not the same power to impose their intentions on Grete as on Betty. Even though Grete has a big wholesaler as representative in Sweden, all contacts between Salka and Grete are direct, so it must be characterized as a fairly close relationship.

The relation with Svea, the Swedish supplier of precision castings, is also very close, particularly with regard to current purchasing and production. The supplier has adapted itself completely to Salka's production planning system, which is probably due to Salka's large-batch production. In this relationship, the technological fit is not very exclusive – there are many suppliers in Europe – but closeness is required which supports the domestic supplier. The social exchange between Salka's and Svea's personnel is extensive and the social exchange with the personnel of the small production plant is very good.

The least intimate relationship is obviously with Fifi, the French supplier. Most

of the contacts go via their Swedish representative. Very small adaptations have taken place and all have been made by Salka. The relationship seems to be built entirely on Fifi's superior ability to offer a product which is well fitted to Salka's needs. Since those needs are stable, no development takes place and no complex planning is required. It is a relationship based on technological fit.

To these comments we may add that it must pose great organizational problems to purchasing when the firm is so heterogeneous with regard to production technology. The need for differentiation of purchasing has been satisfied by localizing operating purchasing activities at the production departments of the sub-divisions.

The need for integration is achieved by a strong central purchasing department with responsibility for strategic purchasing problems.

Finally, it is worth noting Salka's strong emphasis on the long-term development of supplier relationships. Nevertheless, three of the four relationships discussed are rather `young'. One explanation is that the rubber gaskets and steel sheet are used in a product which is quite new and which has expanded very fast. Another explanation might be that the firm has tried to internationalize their purchasing in recent years. This would explain why the foreign supplier relationships are quite recently established, whilst the domestic supplier relationships are old.

SECTION 4.5 PURCHASING IN FIRMS WITH MASS-PRODUCTION TECHNOLOGY

CHARACTERISTIC PURCHASING PROBLEMS

Mass-production technology firms can be characterized by the high degree of inflexibility which prevails. The production process is planned with great precision and exact time schedules are laid down. Thus, a stable and assured flow of materials and component inputs to production is of critical importance. Stock holdings are an important means of smoothing out variations in the flow of inputs in the production system. Accordingly, a good deal of purchasing activity focuses on ensuring stable relationships with suppliers, since stability helps ensure security.

Despite the emphasis on stability, purchasing is also involved in change. If the company is to keep up with its competitors, it must ensure that relevant technical developments in materials and components are identified and incorporated in their own products. Obviously, difficulties arise in trying to `balance' these two types of activity in such a way that the `right' degree of stability and change is achieved within individual relationships, as well as within the total structure of relationships. The achievement of this balance can be regarded as the main problem facing the purchasing department in purchasing materials and components.

The purchasing of equipment gives rise to somewhat different problems.

Production equipment is extremely important to mass-production companies since it has a major impact on manufacturing cost levels of the firm. Furthermore, the stages of the production process are closely integrated and thus all equipment must be well adapted to all parts of the production process. Therefore, close technical collaboration with equipment suppliers usually takes place.

The way in which purchasing is organized and carried out in a particular mass-production company of course depends on factors other than just the technology. In the discussion of unit production companies, two major factors were discussed, i.e. the characteristics of the supply market and the organizational characteristics of the buying firms. These factors are also important in mass-production companies and are discussed below.

(i) The characteristics of the supply market: Two characteristics were identified earlier, the degree of concentration and the degree of dynamism. The marketers of large and complex components for cars and other consumer durables are often international oligopolies with only a few very large suppliers. Technically less sophisticated components and minor components are normally produced by more suppliers. The same kind of strategies that were mentioned in the preceding section can be applied by the purchasing firm. One important difference, however, is that the volumes bought by a mass-producing firm are so large that they are able to influence the markets in a much more direct way. They can develop suppliers and engage in joint product development. The number of potential suppliers of essential equipment is very limited. A normal strategy, therefore, is to establish a very close relationship with one such supplier.

(ii) Organizational characteristics of the buying firm: Generally, purchasing is taken care of by a central purchasing department with a strong internal position. Within the department, purchasing is normally highly specialized by component or material. In some companies there is a division of work between day to day activities (stabilizing activities) and `changing' activities (new buying).

There is seldom any direct influence from any external unit on purchasing behaviour. The purchases of materials and components to a large extent are dealt with by the purchasing department once the technical specifications are established and any initial technical problems are solved. The technical staff are then only important when there are changes and for the technically more essential components. Equipment is normally handled by a special purchasing unit which has both technical and business competence. Four cases will now be presented which exemplify the issues discussed above:

Ace Motors This case is about an English vehicle manufacturer and its purchasing problems. The organizational issue, discussed above, of the division of the `day to day activities' and `the changing activities' is exemplified by this case. The reliability of delivery is emphasized and Ace Motors uses both parallel suppliers and safety stocks in order to protect itself against lack of components and materials.

Sprinter This case shows how a single event or `episode' can dramatically

change a British company's supply structure for a particular product. The purchasing firm implements a new multi-sourcing policy in order to obtain greater freedom of supply and because of the unreliability of its present supplier. As a consequence, a long established and stable relationship is broken by the purchasing company and replaced by several international supplier relationships.

Svefo In this case two important supplier relationships of a Swedish firm are examined. These are characterized by an emphasis on improving the logistics and stability of the relationships. In both cases, the purchasing company has problems in obtaining technological development since the stabilizing activities are dominant. One of the relationships also shows how a purchasing company can manage with a supplier despite its unreliable delivery performance.

Auto Equipment The fourth case shows how buying of equipment can be carried out. Among other things this case illustrates the previously mentioned special unit for equipment purchases. The case also shows how a formal purchasing policy can be put aside as soon as problems occur; the emphasis is then directed to solving the problem and all rules are `forgotten'. The technical complexity in the purchasing of equipment is exemplified and in one relationship the supplier has to have the assistance of a competitor in order to manage the project.

ACE MOTORS

David Ford

INTRODUCTION

This case deals with the purchasing strategy and operations of a UK vehicle manufacturer, producing a range of cars and commercial vehicles. The case concentrates on the purchase of components. The Company is relatively small compared to the major European vehicle manufacturers. It is, however, a wholly owned subsidiary of a major multinational with vehicle manufacturing subsidiaries in other European countries.

Table 1 Value of overseas direct purchases[a]

	£
France	352,000
Germany	14,400,000
Italy	530,000
Sweden	very small

[a]These figures do not include purchases from other European subsidiaries of the same group.

The Company's annual purchases total £300 million for raw materials and components. Approximately 60—65 per cent of the cost of goods sold is accounted for by bought-in items. Equipment purchases are approximately £50 million per annum. Approximately 30 per cent of purchases are from overseas suppliers. This proportion is increasing rapidly. Current figures for overseas purchases are given in Table 1.

PURCHASING ORGANIZATION

Purchasing Groups

Total purchasing staff is 165 people. The purchasing organization is controlled by a purchasing manager who supervises four purchasing groups, each headed by a purchasing officer. These groups cover respectively:

Equipment — capital equipment, services, plant consumables;
Proprietory Items — brake gear, gear boxes, electrical accessories;
Minor Parts — fasteners, rubber, glass, castings, other small components; `Policy Items' are controlled by the Purchasing Manager himself. These are items of major importance which are the subject of policy at the multinational level. The two main products are steel and tyres.

Purchasing Services

This group consists of forty staff including twelve purchasing engineers. Their work includes co-ordination with the engineering departments of potential suppliers for new vehicles as well as vendor checking and audits of the individual purchasing groups. The buying department is currently aiming to achieve self-sufficiency in technical matters for purchasing decisions by increasing its number of technically qualified personnel.

Features of this form of organization are as follows: there is a separation of new product buying from the continuing liaison with suppliers (the former is the responsibility of the Purchasing Services Group and the latter of the Buyers). The purchasing departments responsibilities are limited to procurement itself. They have no responsibility for production control, inventory levels, or those more generalized functions which would come under the heading of Material Management. There is no department with separate responsibility for the development of long-term purchasing strategy. (Forward research into basic materials is carried out in the United States.)

MAJOR FACTORS AFFECTING PURCHASING POLICY

Before examining the nature of the Company's relationship with its suppliers, it is important to note the several factors which together affect those relationships. The Company's policy is to dual-source wherever possible and particularly

where tooling costs are not a constraint. However, its small relative size often makes this difficult and emphasizes the importance of security in the case of single suppliers.

There is increasing commonality of products with those of other European subsidiaries. In most cases products have been launched by the other European companies first. This means that foreign suppliers for some components have already been set up by other subsidiaries before the UK company becomes involved. Thus using overseas suppliers is probably easier, quicker, and cheaper for this company than other UK buyers.

The Company has suffered supply problems from UK suppliers. In part this stems from UK industrial problems and in particular the three-day-week period. This has led to a conscious policy to buy a proportion of products from overseas.

SUPPLIER RELATIONS

Ace's relationships with four suppliers are considered. These are as follows:

Product type	Supplier countries	Value of purchase from this supplier
Minor Components Type A		
Produced to a standard specification by all suppliers.	Italy	£500,000 p.a.
Product is available from many sources	UK	£1.5m p.a.
Minor Components Type B		
A range of components, some of which are standard	Germany	£250,000 p.a.
items and some of which are developed specially for Ace	UK	£500,000 p.a.

The information on each relationship is taken from individual purchasing respondents and reflects their ideas on the characteristics of the relationships.

Minor Parts — Component Type A — Supplier Countries UK, Italy

Background

Purchases from the Italian company started in 1971, following a major strike at the UK supplier.

Other reasons for buying from the Italian supplier were as follows:

(i) A capacity shortage in the supply industry for a new technology product of this type and Ace's wish to have a `foothold' in all major vendors to ensure future supplies.

(ii) The Italian supplier was thought to be outside a European `ring' or 'non-aggression pact' between major suppliers of this component.

The Italian Relationship — Respondent: Purchasing Officer

The Italian company is state owned with a turnover of approximately £37 million per annum. Fifty per cent of the supplier's exports are to Ace.

(i) Supplier adaptations and product characteristics The most important adaptation made by this supplier was the provision of one month's stock in a neutral warehouse in the UK in order to ensure a reliable supply. The respondent also quoted production to agreed specification, technical service, and price as important criteria in the choice of supplier.

(ii) Customer adaptations None.

Buyer	Seller	Frequency	Topic
Respondent	Agent	Weekly	Agent acting as 'go between' for delivery, quality problems.
Respondent	Sales Manager	Every two months	Sales visits 'face-showing', discussion of quality and delivery.
Respondent	Sales Director	Every six months	Forward plans, capacity levels, price negotiations.

Fig. 1 Contacts with Italian supplier

(iii) *Contact pattern* The supplier company is represented in the UK by an agent. He provides no technical or stock service and calls in technical or sales staff from the supplier where necessary.

The buyer has visited the Italian company once. There is a clear separation of roles between the agent for routine contact, the Sales Manager backing up this contact and the Sales Director for major negotiations. The buyer emphasized that there was no contact between this supplier and anyone else in his company except between the agent and the Materials Department for delivery follow-up.

(iv) *Supplier characteristics* The supplier often appeared unsure of the buyer's seriousness in negotiation and did not appear to trust agreements even when they were written down. Responsibilities were relatively well defined by departments in the company and technical and commercial competence of the sales staff was quite high. This supplier had proved itself on deliveries, was flexible, and operated `as effectively as the Germans'. Purchases from this supplier have been doubling annually over the last three years.

The UK Relationship — Respondent: Senior Buyer

This supplier is the automotive division of a very large UK owned producer. The

company has a record of technological leadership in this product area and the majority of world producers operate under licences from this manufacturer.

(i) *Supplier adaptations and product characteristics* Since the product was available from at least three approved sources, price was the most important factor. The second criterion was delivery performance. This supplier has the advantage of large capacity and low transport costs because of its proximity compared to overseas suppliers.

Again, the main adaptation by the supplier was the provision of a security stock insisted upon by the customer. The UK company has also developed a new product to meet the customer's requirements. It had also increased its production at one stage when the Company had supply difficulties from the Italian supplier.

(ii) *Customer adaptations* None.

(iii) *Contact pattern* The contact pattern in this case was less frequent than that with the Italian supplier as shown in Fig 2

Buyer	Seller	Frequency	Topic
Respondent	Automotive Sales Manager	Every three or four months	New models, price movements, error etc.
Respondent	Assistant Automotive Sales Manager	Every three of four months	New models, price movements, error etc.

Fig. 2 Contacts with first UK supplier

The buyer consulted the Purchasing Officer about overall vehicle policy for his negotiations with the supplier. Other direct contacts occur between the respective engineering departments and marketing departments. These latter contacts discuss changes in other vehicle manufacturers' products involving these components. The contact was considered adequate except when it became necessary to `chase up' quotations.

(iv) *Supplier characteristics* The supplier was described as very competitive and it was important not to give them too much information. Information was said to be carefully recorded and might be used against the Company in future negotiations. They were also unwilling to offer modified quotations or to give a breakdown of prices. Responsibilities between departments in the UK company are not clearly defined. The respondent did not understand why two separate sales people had to deal with his company. He did note the very high level of technical and commercial competence of sales staff and the ease with which it was possible to have direct access to technicians. This latter point can be contrasted with the Italian supplier where all contacts with technical people were strictly controlled by sales staff.

The lack of flexibility and adaptability of this supplier was noted. Problems had

arisen due to inadequacies in scheduling in the customer company and also the long lead times which this supplier operated on. It was also said to have an older plant than the European average and was therefore slower to adapt to new products and competition.

Minor Parts — Component Type B — Supplier Countries, Germany, UK

Background

These components range from items for mundane applications to those which are critical from an engineering or safety viewpoint. The total value of purchases of these components is £3/2 - 2 million. Approximately £ 1 million worth are bought in the UK.

The German Relationship — Respondent: Purchasing Officer

This supplier is an independent, largely national company. It has a turnover of approximately £35m per annum and has been established for 40 years. The Company specializes in this type of component and has no interest in other activities. Its sales to Ace are approximately £250,000 per annum. This volume has risen from £100,000 per annum in four years.

(i) *Supplier adaptations and product characteristics* The supplier has only made minor adaptations to suit the customer. The respondent quoted good technical expertise and the ability to produce up to specification as important criteria. Ace's primary requirement was delivery performance. The Company was prepared to buy from the German company because `supply is what counts, although they do cost more from Germany'. This particular component is dual sourced and there is no security stock. However, the supplier has been prepared to hold stock of finished product to cope with problems of lead time on orders.

(ii) *Customer adaptations* None.

(iii) *Contact patterns* This supplier is represented in the UK by the same agent who represents the Italian company (above). This agent is paid a fee by the buyer, does not work on commission, and does not provide stock or service facilities. The respondent attributed the relatively slow growth in purchases from this supplier to the inadequacies of the agency arrangements. The contact pattern is irregular and is described in Fig. 3.

The respondent has visited this supplier twice in the last four years but has had no discussions with the agent. Contact was delegated to another more junior buyer. It is thus noteworthy that, although this respondent had weekly contact with the common agent in connection with the Italian supplier, he did not discuss the agent's German principal during these visits. This may be because of the relative lack of importance of this component in value terms, but also may relate to

Buyer	Seller	Frequency	Topic
Respondent	Export Sales Manager	Approximately once per year unless the customer complained	All financial, delivery and technical questions.
Respondent	Technical Director	Approximately once per year	Major technical matters.

Fig. 3 Contacts with German supplier

the extent of the agent's commitment to the product as well as the lack of support and contact by the German supplier himself. The buyer had complained to the supplier about the irregularity of contact and it was clear that the supplier believed that the agent was visiting more frequently than was actually the case.

The Design Engineer and Quality Control Manager of the supplier have visited Ace when there have been problems. There was also contact between Ace's Materials Progress Department and the Supplier's Export Sales Manager by letter and telex, and between the Quality Departments in the two companies. The respondent did not know of the frequency of these contacts.

(iv) *Supplier's characteristics* The supplier was described as very responsible though the company's high technical competence could be contrasted with its relatively low commercial competence. As well as the lack of close contact, the company was said to be slow in quotations due to an insistence on getting the quotation exactly right, and was inflexible in deliveries. Moreover, the supplier was unwilling to engage in price competition despite the fact that the product was expensive by German standards.

(v) *History of the relationship* The relationship with this supplier started in 1974 at a time of supply difficulties from UK companies. The German supplier was retained after this immediate problem was over and after suppliers of this component were rationalized.

This relationship can also be contrasted with that with a Swedish supplier of the same product. This relationship began when Ace was experiencing severe supply difficulties. The supplier produced a substitute product within five days of the initial enquiry although his price was higher than the UK products. The company has been subsequently retained because of its reliability. Contact with the supplier's Swedish headquarters is limited and the relationship is largely managed from the UK sales subsidiary, although prices are determined in annual negotiations with the parent company. Ace is in weekly contact with the UK Automotive Sales Manager at the sales subsidiary to discuss delivery, quality, and applications. This supplier's sales subsidiary was previously its agent in the UK. However, the supplier took over this agency soon after initial orders from Ace.

The UK Relationship — Respondent: Senior Buyer

This supplier is a large diversified company with a turnover in excess of £250 million per annum in a range of engineering industries. The products bought from this company consist of a wide range of automotive components, from critical through to standard assembly items. Purchases from this supplier increased from £200,000 per annum to £500,000 in the last two years. The main reason given for this increase was supply problems with another UK vendor.

(i) *Supplier adaptations and product characteristics* The single most important factor in judging the quality of a supplier in this area was delivery performance, followed by flexibility. Technical expertise and adequate representation were also noted. This supplier has sufficient capacity to meet Ace's requirements. The main supplier adaptation is to keep three weeks' stock of non-dual-sourced items in an independent warehouse. This was a major departure from this supplier's normal practice.

(ii) *Customer adaptations* None.

(iii) *Contact pattern* Ace is currently switching major purchases of a wide range of components to this supplier and as a result has close contact with him. The seniority of this buyer also meant that he was responsible for all aspects of negotiations, including price. The contact pattern is outlined in Fig. 4.

Buyer	Seller	Frequency	Topic
Respondent (Group Buyer, deputy to Purchasing Executive)	Visits to supplier Chairman of Component Division Managing Director Sales Director	Two—three times per year	Long-term supply development. Pricing.
,,	Visits to customer Sales Director	Six times per year	'Courtesy' visits.
Engineering Materials Process Inspection	Salesman	Weekly	Deliveries, quality control

Fig. 4 Contacts with second UK supplier

The buyer reported that he only became involved with other departments in his company about this supplier if there was a danger of supply problems.

(v) *Supplier characteristics* This supplier was reported as committed to this customer and offering a very good level of service. The respondent's only concern

was the supplier's close relationship with another and larger customer. He felt that this could inhibit their future relationship and lead to problems if there were supply shortages.

(v) History The only clear crisis in this relationship occurred when a delivery delay occurred due to a machine breakdown at the supplier.

CASE ANALYSIS — ACE MOTORS — PURCHASING

Several clear points about the development of long-term relationships by buying companies emerge from this case:

Organization and Policies

The Company's purchasing operates within the following overall policies:

- A decision to obtain a considerable proportion of supplies from overseas, to counteract supply difficulties from the UK.
- Decisions to rationalize suppliers within product groups, while at the same time retaining dual-sourcing, wherever possible.
- The imposition of conditions on suppliers to establish `security stocks' to counteract supply difficulties.
- The placing of responsibility for the future planning of supplies of particular products with individual buying groups. This involves a clear emphasis for the buyers on the build-up and evaluation of relationships over time.
- The explicit designation of some suppliers as `Development Suppliers'. These are companies from which Ace plans to buy both increasing volumes of product and the next generation of products. Ace places considerable emphasis on development suppliers and stresses the importance of close relationships with them:

  > `We can tolerate mistakes by a supplier. We can't tolerate them stopping the line. If they have a problem, we would expect them to talk to us, explain the problem and we would be prepared to help. X supplier didn't tell us of a developing problem until it was too late. There was no trust and so we dropped that supplier.' (Purchasing Officer)

  The development supplier terminology is an overt categorization of suppliers which affects the overall relationship, contact patterns, and level of resources of commitment devoted to particular relationships.

Contact Patterns

The future importance of a relationship to a buying company may in part be

indicated by the level of seniority of personnel assigned to the liaison and the frequency of contact. The status of his representative is wholly within the control of the buying firm. However, the frequency of contact is determined by both buyers and sellers and the seller's willingness to establish frequent contact may be one of the issues which prompt the buyer to develop their relationship. It may also indicate the importance of the relationship to the selling company. Contact patterns vary widely for Ace's different relationships. For example:

– Component A UK and Italian suppliers
  The Italian supplier was seen as the development supplier. Contact was more frequent, was undertaken by the Purchasing Officer. Liaison with the UK supplier was less frequent, and more routine, and delegated to a junior buyer, even though purchases were of greater volume.
– Component B UK and German suppliers
  The UK supplier could be considered as `developmental'. The UK relationship was handled by a senior buyer and was marked by frequent contact and visits to the supplier. The Germany relationship was delegated to a junior buyer even though the Purchasing Officer saw the company's agent on a weekly basis.

In this case, the level of personnel involved and frequency of contact with a supplier depends more on the nature of the relationship the buyer is trying to establish than the volume of product currently purchased.

Attitudes to Relationships

Choice of Suppliers

Delivery reliability and the ability of supplier to meet specification continuously appeared to be of major importance for Ace as a reason for considering new suppliers. This was probably due to supply difficulties in the past. The components were of a type which required little supplier adaptations but where a supplier's ability to cope with short-run demand changes or to overcome potential supply crises was considered critical. Hence flexibility of a supplier was highly valued. This is shown in the British and German suppliers' attitude to the supply of component B.

Commitment

`Formal adaptations' are negotiated as part of a contract. Examples are the provision of a specially developed product or, as in this case, the establishment of security stocks. The flexibility of suppliers to make adaptations beyond those included in the contract appears to be taken as an important measure of commitment. We refer to these adaptations as `informal adaptations'. It seems that commitment and flexibility are closely related to each other and are important in a

buyer's assessment of a relationship. In Ace Motors the value of flexibility is particularly marked in the case of more recent relationships, e.g. contrast the Italian supplier of component A with the probable lack of commitment of the UK supplier of component B. The lack of commitment of the UK supplier was considered to be a function of his close relationship with another customer.

Informal adaptations may follow after a formal agreement and may even rest on a verbal rather than a written understanding. Examples in this case include rapid response to a product quality problem and flexibility in delivery levels to accommodate a supply difficulty from another source.

The customer can demonstrate his own commitment through his willingness to make informal adaptations. The quotation above from the Purchasing Officer demonstrates the type of commitment a customer expects and indicates a willingness to modify delivery or quality requirements or financial arrangements to cope with a supplier's difficulties.

The Purchasing Officer also mentioned the importance of trust in a relationship. We have discussed trust in the theory chapter as a variable in the build-up of inter-company relationships. In this case there are two examples of possible lack of trust in relationships.

The Italian supplier of component A appeared doubtful of the value of formal agreements and was unsure whether the buyer was serious in his intentions to actually take products as agreed. Since this relationship has existed for a short while this problem may have been due to the lack of experience of this supplier with this customer.

The UK supplier of component A displayed a lack of trust on the exchange of information. The buyer believed that information divulged to this supplier could be used against him in future negotiations. The social exchange between the two parties, which is part of the build-up of long-term relationships, would be severely hampered by such inhibitions.

In only one relationship was Ace concerned about the price of the product. This occurred in the UK supplier of component A where the supplier was regarded as non-developmental and the product supplied as a commodity, hence price assumed major importance. In the other relationships it appears that an `appropriate price' was a precondition for the development of the relationships. Thus, although price clearly has some importance in a relationship its importance is mitigated by other relationship variables.

Ace Motors pursues a policy of separating `developmental' and `non-developmental' relationships and there is a clear difference in their approach to these relationships. This is seen particularly in the `contact pattern' which reflects the perceived importance of the relationships more than the volume of current sales. Both a customer and supplier can demonstrate the value of a relationship to them and their commitment to it through their informal adaptations.

Finally, it is noteworthy that no customer adaptations were reported in any of these relationships. All featured components, some of which involved supplier adaptations – both of product and service. However, the customer, in all cases, bought according to its standard terms and conditions.

SPRINTER

Malcolm T. Cunningham

A case study concerning the breakdown of a long-lasting relationship between a British manufacturer of high volume consumer durables and its single supplier of rubber components.

THE COMPANY

Sprinter Ltd. is a division of a very large UK engineering group. It employs 9,000 people in the manufacture of high volume consumer durables at three factories in the UK. The company is internationally orientated insofar as 65 per cent of its £100m per annum of sales are exported and additional sales are derived from the activities of overseas manufacturing subsidiaries. A relatively comprehensive range of branded consumer durables are made in high volume batches. Purchases amount to £43m per annum of which 34 per cent comes from overseas suppliers, mostly in the form of components and capital goods. On the other hand, raw materials are bought almost exclusively in the UK, a high proportion of which are manufactured and supplied by another company in their group.

The Company is the market leader in the UK and probably in the world, and was formed by the merger of major manufacturers of this specialized range of products. Acquisition of other companies has secured for Sprinter Ltd., a high market share in the industry. A large number of small specialist manufacturers still exist and supply 15 per cent of the total UK market between them. Sprinter continue to market several distinct branded products in almost all price and application segments.

The Company was acquired by the parent group approximately 13 years ago and is an important outlet for some of the products made by other companies in the group. Technical developments in the design of these consumer durables call for increasing use of special metal and plastic materials. These cannot now be made within the group and are being purchased overseas.

Sprinter Ltd., being the major manufacturer in the UK, represents 85 per cent of the market outlet for specialist component manufacturers. The company is not able to sustain a UK component industry making exclusively for itself. Therefore, it buys special components from those suppliers (particularly Continental ones) who make for Sprinter's European competitors. It buys certain high technology items from a company which it owns but encourages that supplier to sell 50 per cent of its output both to UK and overseas competitors.

THE PURCHASING ORGANIZATION

The department responsible for purchasing employs 68 people and the organization structure is one in which separate buying sections deal with the following categories of items:

rubber and plastic components, packaging materials, non-production items (machinery, tooling, consumable supplies), and production supplies (raw materials and components).

Plastic and rubber components are of extreme importance to Sprinter Ltd. They account for 8 per cent by value of all purchases and involve an annual expenditure of £4.5 million per annum. The Purchasing Director takes direct responsibility (through an assistant) for decisions relating to this group of rubber and plastic products and was instrumental in making the decision to set up overseas sources of supply.

THE CUSTOMER'S SUPPLY REQUIREMENT FOR THE COMPONENT BEING PURCHASED

The component on which this case study focuses is a moderately high technology rubber item made to Sprinter's specification in composition, size, and appearance. The supplier is required to make moulds to Sprinter's design so that the component is a branded and identifiable item on the final consumer durable which the consumer can recognize. There is a substantial spares market for these rubber components which Sprinter attempts to satisfy on exclusive supply terms. The branding of the component helps Sprinter to preserve this lucrative market and to ensure that the component conforms to their own very high quality and safety image.

The Company has always been heavily dependent upon the technology of the special rubber industry and it is not feasible for Sprinter to contemplate making these components themselves because of the very high level of investment in plant and technical expertise required in this sector of the rubber process industry.

The most crucial feature of the component is its safety in operation by the final consumer. Legal consequences to the company are extremely high if the component is defective in use and injuries to the user result. Consumer and dealer complaints are a characteristic of this industry and these rapidly affect the Company's reputation and sales. Additional important features of this component are its durability, its suitability to withstand wear, and its aesthetic appearance. Any replacement parts required by the consumer are almost exclusively in this rubber component. The safe and efficient performance of the whole consumer durable is highly dependent on this item and so the manufacturer is heavily dependent on the technology and quality control of the supply industry.

Deliveries of the components are required weekly. A three months' order is usually placed on the supplier with a monthly or weekly schedule confirmation and call-off. The supplier is not expected to provide special services to the customer but is required to carry stocks to prevent disruption of deliveries.

THE ORIGINAL SUPPLY RELATIONSHIP

All these rubber components, to a value of £4.5 million per annum, were originally

bought from one UK supplier, Rubbercraft. This supplier is organized on a multi-divisional basis and is an international company, world renowned for its products and rubber technology. The relationship with the supplier extended over 30 years and many of the separate companies which merged to form Sprinter Ltd. bought from Rubbercraft. Joint technical development in the early years between the supplier and the customer had characterized the relationship as both industries grew side by side. Rubbercraft had now grown to a vast multi-million, multi-product group of companies operating in markets all over the world. The component technology was reasonably static and little innovation appeared to originate from the supplier.

Technological change in the rubber component industry had been relatively slow apart from such major events as:

(a) the introduction of synthetic rubber;
(b) the reinforcement of rubber components with metal and fibres in order to operate under high stress conditions;
(c) specific technical developments in mechanical parts incorporated into the components bought by Sprinter Ltd.

Sprinter claim to have played a major role in stimulating developments in this sector of the rubber components industry. The consumer durables made by Sprinter are subject to periodic changes in fashion, appearance, weight, and performance features and these have affected the rubber components to a significant extent.

Supplies to Sprinter Ltd. accounted for less than 3 per cent by value of the output of Rubbercraft although the customer was an important one in terms of the long-standing relationship, the quality reputation of the customer and the fact that Sprinter was now almost the only UK customer for this component.

Over the years, delivery supplies by Rubbercraft were unreliable and caused some difficulties in the business relationship; but bad delivery is endemic in the industry and is something which customers learn to live with.

Very little objective appraisal of the performance of Rubbercraft as a supplier had taken place by the buyers at Sprinter and, apart from the well-known international competitors of Rubbercraft, little was known of the international or Continental supply market situation.

THE DISRUPTION OF THE RELATIONSHIP

In 1969, Rubbercraft asked the customer for an increase in prices of 35 per cent at a time when inflation accounted for rises of 2–3 per cent per annum. This proposal came shortly after the appointment of a new Purchasing Director at Sprinter who had several years' experience in the automotive industry, buying principally in the UK but also from France. The buyer previously responsible for purchases from Rubbercraft has been with the customer-buying organization for 40 years.

The action by the supplier so antagonized the customer (in the person of the new Purchasing Director) that he immediately reappraised the supply situation. In addition to feeling that the long-standing relationship had been put in jeopardy, the customer now recognized that the delivery problems, which had always beset dealings with Rubbercraft, were additional grounds for exploiting the prospects of obtaining alternative sources of supply.

THE SEARCH FOR NEW SUPPLIERS

Enquiries were sent to all known suppliers in the world but no response was obtained. Further contact with suppliers revealed that all the suppliers believed that Sprinter Ltd. was not seriously contemplating changing from Rubbercraft and that price information was being sought purely for bargaining purposes. Subsequently, the Purchasing Director visited 25 potential suppliers in 12 countries in trying to secure other supply sources.

A decision was made to attempt to obtain multiple sources of supply from one manufacturer in each of several European countries. A policy decision was also arrived at not to buy from the largest supplier in each country because this might only lead to a repeat of the situation with Rubbercraft.

Many of the overseas suppliers were found not to be any cheaper than Rubbercraft but were capable of producing a component of acceptable quality and appearance. The customer wished to avoid supplies from only one overseas country, in order to reduce problems of currency fluctuations by having the flexibility to change the volume of business between countries. Sprinter also were seeking to deal in future with medium sized suppliers who would be more dependent on and responsive to Sprinter's needs than Rubbercraft had been. Thus, Sprinter would have greater bargaining power and yet would not purchase more than 20–30 per cent of a supplier's output.

The present supply position which now applies to the purchase of £4.5 million Der annum of these rubber components is as follows:

Supplier country	Percentage share of customer's business
Holland	45%
Poland	35%
France	6%
Czechoslovakia	6%
Belgium	3%
Austria	3%
Japan	2%

THE DEVELOPMENT OF THE FRENCH SUPPLY SOURCE

As an illustration of the process by which a new supply source is brought to

fruition and to analyse the interaction between the customer and supplier in different stages of supply development, the following information is concerned exclusively with the French supplier.

Initial Interaction with the Supplier

In pursuit of the purchasing objectives for the rubber component discussed earlier, the Purchasing Director visited France and saw four rubber manufacturers.

The first one, Michelin, was the most reputable and largest, but they refused to put Sprinter's name **on** the component and were unwilling to adapt to the customer's needs in other ways. They would not give the buyer access to the manufacturing plant or technical processes. This confirmed the buyer's views about the problems of dealing with large supplier companies.

Three other suppliers were visited and were subjected to assessment by a vendor-rating system on the usual criteria of financial viability as well as technical and commercial capabilities. Particular attention was paid to the supplier's organization structures, sales competence, quality control systems, and capacity to meet anticipated order. One supplier, Rebondit, seemed more suitable than the others and subsequent validating visits were paid by the customer's quality assurance engineers and inspection staff to investigate the supplier's skills in rubber moulding and tool manufacture.

The chosen French supplier is a medium sized rubber goods manufacturer employing 500 people in large volume-batch process work and having sales of £20m per annum.

Initial contact was made in 1969 by the Purchasing Director of Sprinter with the Managing Director and Sales Director of Rebondit. These contacts were augmented in the vetting stage by the Assistant Buyer and Quality Assurance Engineers of Sprinter having face-to-face meetings with the Sales Director, Works Manager, Quality Control Manager, Production Supervisor, and Sales Office Manager of Rebondit.

Adaptation made by Customer and New Supplier during the Relationship

Initially, some significant adaptations were made by the supplier in order to be given the business. Rebondit modified its product policy in agreeing to brand the component with the customer's name and also modified its normal product specifications, dimensions, and surface finish. Special moulds and tools were needed but these are partly financed by the customer. The supplier was also obliged to install special test equipment and to utilize the customer's test procedures instead of its own. Rebondit conceded substantial price discounts from the initial quoted price and has subsequently accepted a 19-day delay in the payment of accounts to accommodate Sprinter's computer invoicing system.

By contrast, the customer had made no real adaptation, except in its capability to receive weekly shipments and documentation in English from their French supplier and to reach some mutually acceptable approach to the terms of credit.

Overcoming Problems as the Relationship Develops

The business relationship has now been in existence for eight years, since 1970. Supplies from the manufacturer increased very rapidly from 1970 to 1973 and have been stable since 1974. The customer currently spends £275,000 per annum with this supplier. However, two major events have arisen during that time. The first was in 1972—3 during the oil crisis when deliveries became difficult and supplies fell by 40 per cent for a period of six months. This was accommodated by obtaining supplies from other manufacturers. The second event was the change in relative value of the franc and the pound. This was overcome by obtaining better discounts from the supplier.

Characteristics of the Relationship with the French Supplier

The buyer has gained the following impression of the supplier based on over seven years of a business relationship.

`Rebondit as a supplier is an ordinary rubber manufacturer, full of mediocrity. They are more interested in other rubber components than in those which we buy. They are not a very flexible company and think that we drive them too hard to improve their component technology. They react as though we ask for more than we are willing to pay for. The relationship is ideal for Sprinter Ltd. We can dominate them. Trust and confidence is there on our part, but we have severe reservations about their technical ability and innovativeness. They are so typically French — they talk European ideals but think only of France.

`They are a tightly run company with responsibilities very clearly defined and are very formal. They require formal written agreements and decisions are usually subject to top management approval. They are a company with a very distinct domestic orientation and employ no sales representative in the UK. Their selling staff is very commercially competent but of only moderate technical competence. The supplier gives us access to his technical and manufacturing specialists.'

Current Pattern of Interaction between Staff in Customer and Supplier Organizations

There are now four people in the customer firm who are in regular contact with six people in the supplier company. The Purchasing Director still visits the supplier once a year to discuss with their top management the amount of business to be placed in the next year and the prices to be expected. The Assistant Buyer visits his counterparts in sales, production, and design departments of the supplier approximately once a year but is also in regular weekly contact by telephone, telex, and letter. The supplier visits Sprinter Ltd. twice a year and is usually represented by the Sales Director and either the Production or Technical Manager. Additional regular contacts are made between the customer's quality and design staff with the sales office and technical staff of Rebondit.

CONCLUSIONS

The case study draws attention to the single episode, identified by the customer company, which precipitated the total breakdown of a supply relationship which had lasted since the early origins of both customer and supplier companies over 50 years ago. This long relationship with a single, nationally based supplier, was characterized by a great deal of complacency on the part of both customer and supplier alike. The relationship was far from ideal from the customer's standpoint, but familiarity with the supplier's unsatisfactory delivery performance over several years had led to the acceptance of this as the normal situation. There was also a feeling that the supplier was not undertaking the necessary technological development for the component expected of a leading rubber manufacturer. No search for alternative suppliers appeared to have occurred.

The actual episode or event which changed a supply relationship with a single British supplier into a multiple sourcing policy with foreign suppliers was a price increase. This dictatorial action of the sole British supplier in demanding a huge price rise appeared to break the whole nature of the long relationship built up over the years between buyer and seller. Yet the appointment of a new purchasing director just prior to this event contributed to the creation of a new relationship based on self interest of supplier and customer companies. The desire of the new buyer to prove himself and apply his past experience of hard bargaining in the automotive industry accelerated the process of change in relationships. There was now no commitment to re-establish the former spirit of trust and co-operation. A new buying culture had been introduced from another industry.

When the price increase episode occurred, there had already emerged an out-of-balance in the power relationship between customer and supplier. From early origins, where co-operation and size compatibility existed, the supplier had out-grown his dependence on the customer. The customer's orders now accounted for a very small proportion of the supplier's output, yet were a significant proportion of the customer's purchases. The customer was dependent on the supplier's technology and quality for these crucially important components. Innovation was not coming from the supplier, yet the customer was not able to persuade the supplier to develop his components and invest in modern plant. The power relationship had changed permanently.

The case study shows the interplay between such factors as risk, convenience, dependence, and social interaction which influence buying behaviour. The component is of high essentiality to the customer and any change of supplier constitutes a high risk to the individual buyer and to his company. However, the short-term risks of change are accepted in order to lower the long-term risk of over-dependence. The customer has found it convenient to deal for many years with a local British supplier of high reputation. Any change of supplier would sever the long lasting social and business relationships established between different levels and functions of management in both companies. In spite of this, the risk was recognized, the inconvenience accepted, and the desire to alter the

complete dependence on one dictatorial supplier over-rode the problems of severed relationships.

The customer has gone from one extreme of single supplier to the other extreme of multiple country, multi-source supplies. This allows the customer to use different suppliers to serve different functions. It is now possible for the company to keep abreast of technological developments in the industry as a whole, through dealings with manufacturers in several developed countries who also supply the customer's competitors. The customer can draw on the technological and supply capabilities of one major supplier in Holland. In addition, the customer is able to obtain substantial price reductions by buying large quantities from Eastern Europe on a reciprocal basis with the marketing of its own products to these countries. It is also possible to keep a number of small-to-medium suppliers in Western Europe responsive to the customer and dependent upon him for business.

The term `multiple sourcing' is misleading in this situation. The high cost of tooling for the wide range of items required by the customer leads to a situation where the customer divides his total business for these rubber components between suppliers according to different sizes and types of component. Quite often, only one or two suppliers are given orders for the same component. The buyers recognize this phenomenon and deliberately chose this sourcing strategy.

The changing supply situation has placed considerable burdens on the resources of the customer in establishing and maintaining close personal contacts with each supplier in many functional departments in interacting companies. The contact pattern changes at different stages of the relationship both in the level, frequency, and breadth of organizational interaction and this leads to difficulties in allocation of scarce staff resources.

It is interesting to speculate what attempts were made by the original UK supplier to maintain this business with the customer. Evidence points to their total failure but perhaps this was a risk which they had to take in a market for them which was not profitable and not so important.

SVEFO — A Case about the Purchasing of Components in the Automotive Industry

Lars Hallén

INTRODUCTION

The Technology of the Automotive Industry

The dominant production technology of the automotive industry is the mass-production assembly line. This technology is characterized by high requirements for standardization of the inputs in terms of the quality and timing of deliveries.

As the production process is made up of recurring operations, in which the raw material or components used are dealt with in a highly routine way, only small variations in quality can be accepted. The production process does not allow particularly high flexibility in dealing with varying inputs, firstly because the specific competence in the production process is not geared towards the handling of such problems (but rather to the efficient handling of repetitive, similar operations), and secondly because of the long-linked character of the production process: subsequent assembly stages are highly dependent on the output of the previous assembly stages. This internal technological dependence is not just present in a quality dimension but also in a timing dimension, as buffering normally does not take place between the separate production stages. This latter phenomenon further reduces the possibilities of dealing with varying quality in the production process, as short-term adaptations are often more time consuming than can be allowed without disturbing the production process in the subsequent stages.

Also with respect to the timing of the deliveries, the requirements of the mass-producing firms are often high. The assembly-line technology allows the firm either to produce the needed components itself or to buy them from independent or semi-independent suppliers. For many components buying-in is the only practical alternative due to the specific technical competence needed for manufacturing. Consequently, in this industry bought-in product volumes are often very large. Although a certain buffer stocking often takes place as an insurance against delivery irregularities (or parallel suppliers may be used), it is of course highly desirable to keep such buffer stocks down. The large volumes of many components in the production process may necessitate quite considerable buffer stocks, if the delivery timing of the supplying firms is not sufficiently re-liable. This problem is aggravated by the fact that the components often have a high unit value, as they are finished or semi-finished. This disadvantage of having big buffer stocks is not only a matter of the cost of capital, but there are often important problems regarding obsolescence, maintenance, and the actual stock-keeping.

The coupling of the high requirements on consistent quality and on reliable delivery timing with the big volumes bought, provides the specific background to the role of purchasing in the mass-production assembly-line industry. The purchasing unit often has a more pivotal position than in firms operating with other types of production technologies. The large amounts of money spent on the purchase of many different components increases the importance of an efficient commercial handling of the supplier relationships. A good fit in a technical sense is quite naturally also very important, although it is not a continuously recurring problem, as it might be in, for example, the engineering firms of the unit and small-batch production industry. As a consequence, the role of the purchasing unit in a firm with a mass-production technology can be characterized as a system maintenance function, providing the production process with a steady flow of specified inputs.

The Automotive Industry's Supplier Markets

The automotive industry is concentrated in a few regions in the industrialized world. Major centres of this industry are the Detroit area, the Birmingham—Coventry—Manchester region, the Stuttgart—Ruhr area, Sao Paulo, Tokyo—Osaka, and Turin. Within Sweden there is a concentration in the West Coast region. This geographical concentration of automotive production has important effects for the supplier markets of the car producing firms. The suppliers of components and sub-assemblies are quite often localized to these major car-producing centres, and there are often ownership connections between the car producers and the regional suppliers of components. Even in the cases where there are no such ownership connections the dependence of many suppliers on their customers is high. Certain suppliers may be considered as external production units of a car factory and subjected almost to the same degree of control as those owned. This restricts the freedom of supplier selection somewhat, as in some cases a change of supplier would mean that a car producer would have to buy from what would virtually be a division of a competitor.

The Buying Firm

The dominant lines of business of the buying firm — Svefo — are in the automotive industry, from which it derives its name (Svefo: Svenska Fordon AB). The firm manufactures cars as well as commercial vehicles. Its turnover exceeds 10,000m kr (i.e. £1100m), and it is very much orientated towards exports. Some 50 per cent of the group's turnover is represented by the export sales: the figure for the Commercial Vehicles Division (CVD) that we examine here is still higher at 80 per cent.

The Commercial Vehicles Division produces a range of heavy and medium sized lorries. The production facilities are made up of assembly lines as well as certain workshops for the manufacture of certain components. Most components are however bought from external suppliers. The value of total purchases is equivalent to about 50 per cent of the division's turnover.

The high export share with respect to the output is matched by quite a high import share on the input side. Since its establishment the firm has relied both on Swedish and on foreign suppliers, and the share of the foreign suppliers has grown successively up to the present level of 50 per cent. Initially German suppliers dominated amongst the foreign ones, but after the war these were largely replaced by British firms. However, by the 1950s West German suppliers had re-established their dominating positions as suppliers to Svefo.

Two supplier relationships will be discussed in this case. These relationships are picked from a sample of eight important relationships, representing the domestic market and the three most important Common Market countries. As shown in the table below, these important relationships have existed for many years. The table shows the age of relationships for each of the two most important suppliers in each country.

Age of Svefo's important supplier relationships in four markets

	Length of relationship	
Supplier country	Supplier A	Supplier B
France	15 years	10 years
West Germany	25 years	25 years
Britain	14 years[a]	10 years
Sweden	80 years[a]	30 years

[a]These two relationships are selected for discussion.

The relationships represent different kinds of components, from highly standardized ones – e.g. tyres – to components made according to customer drawings – e.g. crankshafts. But all cases represent important relationships in the sense that considerable volumes are supplied by the concerned firms. The distribution of the eight relationships with respect to age furthermore corresponds rather well with the general picture of the firm's history. The domestic suppliers have been with Svefo for a very long time, the German suppliers have kept their position since Germany re-emerged as an industrial power after the war, and the relations to the British and French suppliers are also old, but not as old as those with the German firms.

The Purchasing Department

The purchasing department is responsible for the purchases of the Commercial Vehicles Division. The unit is made up of some 20 persons and it is divided into a number of sections dealing with different product categories. The basic organization principle of the unit is the function of the bought components in the vehicle, but there are a number of exceptions to this for practical reasons. However, what are conventionally termed `components' are consequently handled by several different sections of the purchasing unit.

The two supplier relationships, that are selected for discussion, are handled by two different sections of the purchasing unit. Both relationships deal with typical components in the sense that they are bought in large quantities and they represent an intermediate level of technological sophistication. One supplier is domestic, and the other is foreign.

THE BRITISH SUPPLIER OF CRANKSHAFTS – BEALE

The British supplier of crankshafts – here named Beale, is a part of one of the major British conglomerates in the mechanical engineering industry. The

relationship between Svefo and Beale was taken up on a minor scale in the mid sixties, and in retrospect this is seen from Svefo as an effect of a new purchasing policy, which was instituted by them. Previously the company's attitude towards imports had been rather negative, but this changed then. The volume bought from Beale increased considerably in the early seventies and the principal reason for this was a policy change from Beale. In a reappraisal of its customer relationships Beale wanted to reach agreements regarding higher supply volumes, and threatened to break off the relationship if Svefo did not agree to this. The outcome of this crisis was favourable to Beale, as the volumes did increase.

The CVD purchases a variety of forged component parts, totalling about 200m kr per annum, of which Beale supplies about 10 per cent. The main item supplied by Beale is crankshafts (6m kr per annum). Beale is the sole supplier of this item to Svefo CVD. Other forged products supplied by Beale include connecting rods, gear wheels, and hubs.

The crankshaft is one of the major mechanical components of the engine, and its proper functioning is a precondition for a satisfactory functioning of the engine. But the component is not subjected to extreme performance conditions, and the requirements regarding tenacity and measurement accuracy therefore can be classified as high, but not extremely high.

Shipments of the Beale crankshafts arrive weekly at the Swedish plant. The products have a high unit value, and therefore there is strong pressure to keep the safety stock level down. However, there is still a safety stock corresponding to four weeks' consumption, which is more than normal for Svefo. The major reason for this deviation from the average is that Beale is the sole supplier of crankshafts. It does not reflect any particular anxiety with respect to possible logistical difficulties when buying from Britain.

The relationship can be characterized as a steady, regular product flow, involving several different products, with a pattern of regular and frequent contacts between the CVD purchasing unit and the marketing and production units of Beale. Over the years a rather strong feeling of liking has developed between the firms. A quotation from the Svefo purchasers illuminates this:

> `It is fun to deal with them. We can always make jokes, even during serious negotiations. They know that they are an important supplier to us, and they do not resent being pushed a little'.

But the most striking feature of the relationship is that its objective almost exclusively seems to be the maintenance of the product flow rather than its renewal or expansion.

The product is made by Beale according to the particular measurements that are specified in the Svefo drawings, but it can still be considered as a standard product as seen by Beale. Similar crankshafts are made for other customers than Svefo. Those other customers are chiefly British, and Svefo is Beale's most important export connection. As a consequence of Beale's domestic orientation Svefo has accepted that the material is specified according to British standards rather than international or Swedish systems.

The high degree of trust in the Svefo—Beale relationship, as well as the high priority that both parties attach to the uninterrupted product flow to Svefo in a total sense, is exemplified by an incident during the energy crisis. One of Svefo's other British suppliers of forgings, i.e. one of Beale's competitors, was faced by a severe shortage of a certain raw material, which threatened the deliveries to Svefo. After negotiations between Svefo and Beale and the latter firm agreed to transfer certain quantities of its own supplies of the scarce raw material to its competitor whereby the deliveries to Svefo could continue without interruption. This incidence was not considered as an exceptional action but rather as typical for the co-operation between Svefo and Beale.

The problems in the relationship are connected with how to cope with change, particularly technological change. In a technological sense the British supplier was considered to be very advanced when the relationship was initiated in the sixties. During the seventies, however, Beale has not succeeded in keeping up with innovation, particularly of German firms, but from a total point of view — that is taking into account Beale's marketing competence — Svefo still considers Beale to be a valuable supplier.

Summarizing, we can conclude that at present the major advantages that Svefo derives from its Beale connection are twofold:

(i) the long-term relationship has reached a state where quick, informal, and `agreeable' means of communications are at the disposal of the parties;
(ii) the high standardization of production and delivery procedures has resulted in a favourable cost situation for Beale, which Svefo enjoys in the form of good prices.

Certain disadvantages of the Svefo—Beale relationship are also evident from the discussion above:

(i) Svefo has to keep abnormally large safety stocks as an effect of having no regular parallel suppliers as alternatives to Beale;
(ii) the concentration on resource flow management has not stimulated product and process innovation within the framework of the relationship to compensate the lagging technical progress on the part of Beale.

The chart of the contact patterns between the two firms as seen from Svefo (below) also indicates the predominance of `system maintenance' activities in the relationship. The interfirm contacts are mainly connecting the purchasing and marketing units of the two firms and the two control departments (the latter almost exclusively routine matters). The design departments of the two firms hardly seem to be involved at all any longer.

The need to broaden the supplier contacts to more firms has arisen for Svefo mostly because of a wish to have access to an alternative supplier in order to get more safety in a critical delivery situation. The major disadvantage of the present situation is thus seen to be connected with possible threats to the steadiness of the input flow. The problem awareness seems to be geared to system maintenance.

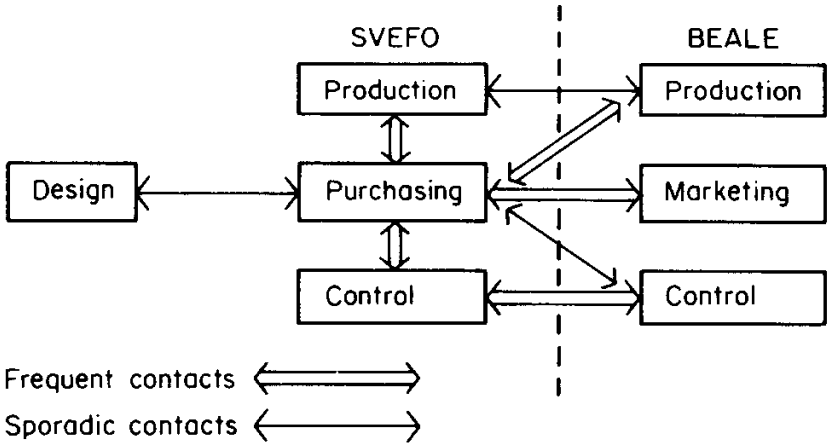


Fig. 1 Contact pattern of the Svefo/CVD purchasing unit

The major weakness and from a long-term point of view probably the condition that will necessitate an expansion of supplier alternatives is the inability to conduct product development activities within the relationship.

THE SWEDISH SUPPLIER OF ENGINE COMPONENTS – SALO

The domestic supplier of certain major engine components – Salo – is a typical example of a components' supplier that has grown and developed together with the automotive industry, which always has been one of the major customer categories of Salo. Historically the ties between Salo and the Swedish automotive producers have been very close. Thus, Salo was involved in the establishment of some Swedish car factories at the turn of the century. Now Salo has grown into a multinational giant in its own line of business, and it shares the world market in a virtual global oligopoly. In all, there are only about a dozen producers of these engine components globally. Salo's market share in the domestic market is very high, and its relationships to the domestic customers are very old. As in the case of Salo's relationship to Svefo the connections may date back to the establishment of either firm.

Svefo buys some 70 different items from Salo for a total yearly cost of 16m kr. However, a few items stand for a very high proportion of the total amount. The most important product in terms of value – a major component for the engines of the lorries – represents 25 per cent of the total value of Salo's yearly deliveries to Svefo–CVD (i.e. 4m kr).

The requirements for this engine component are specified in terms of dimensions and material characteristics. There is an international standard adopted by all major suppliers, and consequently any supplier will readily make an offer when given the article number of a competitor's product. An effect of this general acceptance of the international product standards is that a lorry producer can adapt his product to fit a particular supplier's standard product without establishing any technological obstacles to himself against the use of a competing supplier's components.

This technological possibility of using parallel suppliers is used by Svefo. The components that Svefo buys from Salo cover 65 per cent of the CVD's needs. Regarding the particular heavy components, Salo covers no less than 95 per cent of what the CVD needs. The remaining 5 per cent play a crucial role in the purchasing strategy. These 5 per cent are supplied by Salo's three major competitors: an American, a German, and a Japanese firm. In this way Svefo can regularly get information of technological developments in the industry.

As mentioned above, the relationship between Salo and the CVD of Svefo is very old. The state of the relationship at present, however, is mainly geared towards an efficient management of a regular product flow. Deliveries are made weekly, and there is a 10 days' buffer stock. If there was a shortage of engine components, the assembly line would be stopped, as the components cannot be fitted later. However, no such problems have occurred, which indicates that the logistical system has reached a high level of perfection.

The contacts between Salo and Svefo—CVD involve less people than one might expect taking into account the large volumes exchanged. Only three or four Salo representatives are in regular contact with the CVD, and the relations between the marketing unit and the purchasing unit of the two firms are by far the dominant feature of the relationship. Other interfirm contacts are just sporadic exchanges between the design departments of the firms (see chart below). Consequently, an efficient handling of the interfirm contacts between the marketing and purchasing departments is crucial.

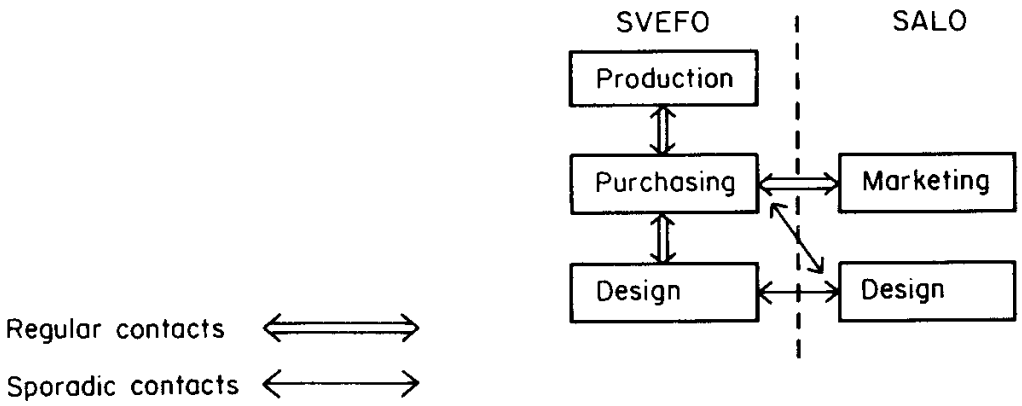


Fig. 2 Contact pattern of the Svefo/CVD purchasing unit

The evidence supports the impression that the interfirm relationship, defined as an efficient management of the flow of inputs to Svefo, really is very efficiently handled: no delivery disturbances have affected Svefo's production although the buffer stock is rather small. Nevertheless, there is a marked dissatisfaction with the relationship on the part of the buyer, as reflected by this statement made by the Svefo purchaser:

> `Salo is quite bad with respect to technical service, as they have trusted their strong market position too much. They have been asleep, and

> they have not observed how foreign competitors to them have gained a foothold in the market. Their American competitor (who only supplies a minute share of Svefo's needs) by now knows more of our problems and wishes than Salo does, because the Americans are interested in us. Salo now seems to react by price competition instead of by offering us the technical advice we need and get from their competitors'.

There is no doubt that Salo will remain the major supplier to Svefo regarding these engine components in spite of this dissatisfaction. The reason for this is to be found in logistics as well as in a feeling of inevitability. Although the relationship is not a cordial one and although there are no immediate technological obstacles to a reorientation of the sourcing, the relationship has become so institutionalized that a break between these two major Swedish industrial concerns seems inconceivable to those concerned.

In summary the Salo—Svefo relationship can be described like this:

(i) The need to ensure a steady flow of vital components makes the buying firm very dependent on the component supplier. In order not to disturb the production process, a reorientation of the sourcing can be made only very slowly.
(ii) To be a domestic supplier is a very strong advantage, even if the business is conducted between two international or multinational firms, as in this case. Even in a situation where the buyer neither perceives social nor technological obstacles to change and where foreign suppliers are used marginally to provide contacts with external competence, the established purchase pattern basically remains unchanged.

CONCLUDING REMARKS

These two examples have illustrated the difficulties of coping with the need for change in relationships that have been established primarily in order to achieve stability. The first example — the Svefo—Beale relationship — shows how the social fabric of the relation helps to keep it going longer than purely technological reasons would motivate, and the second example — the Svefo—Salo connection — shows how a feeling of inevitability keeps the relationship going even when quite strong factors seem to indicate an impending reorientation.

Underlying the problem in both cases is probably an acceptance by the purchasing side that product development is a seller activity. In accordance with the classical `new marketing concept' both parties seem to expect the supplier to analyse the buyer's needs and to suggest new solutions. A more active participation on the buyer's side is probably necessary in order to allow for renewal within the framework of an established relationship. Such buyer participation in the change process might not be possible if the activities are too much directed to resource flow management. Either organizational rearrangements might be called for, e.g. by the establishment of particular development units with close contact

both with their own purchasing and design department and with the supplying firm's design unit, or else a new type of purchaser role could be conceived, where the purchaser himself can actively take part in the development tasks of his own firm.

AUTO EQUIPEMENT

Claude Marcel and *Jean-PaulValla*

INTRODUCTION

The aim of the Auto Equipement case is to show the functioning of a formal purchasing procedure for industrial equipment and more particularly, the adaptability of this procedure to the special characteristics of each transaction. The long and complex purchasing procedures for strategic heavy equipment can be contrasted with that of raw materials, which is dominated by problems of ratification and especially frequency of delivery.

The case shows that even where the buying department is efficient and well-structured it only plays a minor role in the purchasing of production equipment. One can find arguments here which favour the hypothesis that the buying department loses relative importance when the strategic importance of the purchase increases. Finally, the case illustrates, in two of the three relationships examined, processes involving interaction relating to the development of special machines.

THE COMPANY

Auto Equipement is a large component manufacturer supplying the automobile industry. At present, it is concentrating on the renewal of its production equipment and the improvement of productivity per unit.

Currently, the buying department is split into two main sections: a `General services' department which controls the management of supplies and a `Buying department' as such. The buying department is subdivided into five sections which specialize in different types of products. For a given product, the head of a section is responsible for the sharing out of orders between two or more suppliers who have satisfied the complex ratification procedures laid down; he is also responsible for stock control within a framework of minimum stock. Close functional links exist between the two departments that make up the buying section.

The purchase of capital goods, with which this study is concerned, is not dealt with by the buying department, but by a specialized department attached to the technical department. These capital goods are bought mainly from Germany (60 per cent), France (20 per cent), Italy and the UK (5 per cent respectively), although no specific policy is laid down as to how purchases are shared out.

The purchase of production equipment frequently involves high risks insofar as the equipment may form part of a new assembly line, or be for the manufacture of

a new product by Auto Equipement. The number of potential suppliers for a given need is always extremely limited and one supplier may even have a monopoly. Negotiations are usually long and complex and several other departments (such as Methods and Production) are generally involved. The participation may also be explained by the fact that the technology used for capital goods is different to Auto Equipement's own technology, and therefore Auto Equipement are buying technology and know-how at one and the same time.

The buying processes for capital goods reflect this complexity. Schematically, it may be subdivided into 8 phases, as in Fig. 1.

One can compare this system with one for the purchase of raw materials; the latter process is simple and can be represented as follows in Fig. 2.

PHASE	DEPARTMENTS INVOLVED
1 Definition of requirement	Technical department–methods production–general management
2 Consultations (8 on average)	Technical department
3 Initial sifting of offers; choice of one or two possible suppliers	Technical department + methods
4 Commercial negotiations on the basis of a provisional technical agreement. Placing of order.	Technical department
5 Detailed negotiations (tools, setting up, etc.)	Technical department + buying
6 Pre-reception of equipment by supplier for manufacture by latter of a series of parts	Technical department
7 Negotiation of starting date, timetables, etc.	Technical department + Production
8 Installation – Final reception – training of personnel	Technical department + Production

Fig. 1 Buying stages for capital equipment

PHASE	DEPARTMENTS INVOLVED
1 Definition of the need	Purchasing and Production
2 Negotiation – Choice of supplier	Purchasing
3 Testing	Purchasing and quality control
4 Final order	Purchasing and general services

Fig. 2 Buying stages for raw materials

RELATIONSHIP WITH THE FRENCH SUPPLIER

The problem to be solved was as follows: Auto Equipement were to launch a new product and needed a machine capable of performing a larger number of different operations, which could function at moderate speed, but with very high precision. The Auto Equipement technical department were unable to define the power needed or the equipment costs for the tools, which themselves were highly technical and designed by specialized sub-contractors.

Out of approximately fifteen potential suppliers, Auto Equipement asked for 8 quotations. Two offers (one German and one French) got past the third hurdle after an in-depth survey of suppliers had been carried out. Although the French supplier represented a risk for Auto Equipement because of its small size in comparison to its three main competitors, all German, it was finally chosen, mainly for reasons of nationality. It is interesting to record that the French supplier found the order was too complex to undertake it exclusively on his own and had to ask the German competitor for assistance.

The problems involved in the machine's design were crucial, because production speed and quality of the finished product depended on it. A faulty product would mean rejection by Auto Equipement's customers, the auto manufacturers. Likewise, assembly of the new production line required that punctuality of delivery dates had to be respected.

On the whole, the buying process followed the normal set-up. The manufacturer elaborated the product by using known bases as his starting point, and then adapting them to meet Auto Equipement's specifications. A pre-project, leading eventually to the final design, was set up by the Managing Director and a study engineer. Naturally, installation problems, personnel training and maintenance were also negotiated, but this was normal procedure for the supplier. Commercial negotiations were limited to the acceptance of standard terms and conditions by the manufacturer (payment of an advance and the balance by instalments).

Auto Equipement has not modified its procedures for dealing with its suppliers to any significant extent. Although information (even of a confidential nature) was provided to the supplier to enable him to gain better understanding of the problem; this is by no means unusual in such cases.

On the other hand, it is noteworthy that Auto Equipement asked the manufacturer for advice on positioning the machine, in order to determine optimal conditions for feeding the removal of waste material and finished units.

Francoise makes contact with customers via independent sales representatives whose role is limited to evaluation of market potential and being present at negotiations. The representative visited Auto Equipement once a month and Auto Equipement provided him with all the information necessary for his work. The role of this representative was not fundamental to the technical negotiations, but Auto Equipement wanted him to be present at each meeting with the supplier, because they knew each other well and this served to facilitate the discussions. Apart from this representative, three others from Francoise (Managing Director, Works Study Engineer, and his assistant) met about ten of Auto Equipement's

executives on a regular basis. The contacts were bi-weekly and dealt principally with diverse technical aspects of the design of the machines. The fact that the Managing Director was present is worthy of special note: the importance of the projected investment, together with the risk involved when dealing with a manufacturer of limited size, necessitated precise judgement on his part.

The opinion of our interviewee regarding the supplier was fairly positive: he considers it rare in France that completion dates were ever met on time; he considered the management to be reliable, easily accessible, and completely flexible in approach.

This experimental purchase was held to be sufficiently conclusive for Auto Equipement to envisage annual purchases until its factories were totally re-equipped.

RELATIONSHIP WITH THE ITALIAN SUPPLIER

The problem to be solved here was how to replace a series of separate units by an integrated assembly line of fully automatic machinery. The choice of design for this assembly line was very important to Auto Equipement, since if it proved unreliable, this would inevitably lead to complaints from the production department. This problem would be exacerbated by the high machine production speed.

As often happens in such cases, Auto Equipement had only two potential suppliers to choose from, one German and one Italian. The phase 3 choice (cf. Fig. 1) was made on the criteria of price and technical performance. Viso (the Italian supplier) offered a new production method which would cut down the number of operations. Viso is a small company which is highly specialized. They employ a technically trained salesman to prospect the French market; whilst his main activity is selling, he also handles after-sales service and maintenance.

Here again, there was close co-operation between Viso (involving their Managing Director, Research Manager, and a Methods Study Engineer) and the usual departments involved at Auto Equipement (technical, methods, and production departments). However, the phases following phase 4 brought surprises for Auto Equipement. What happened was that Viso's engineers turned out to be incapable of putting the initial project into effect, and the process they had originally planned had to be scrapped for a more traditional system. Unfortunately, it was no longer possible, at this advanced stage, to re-think the machine completely: to do this would have meant considerable delays before the assembly line could be started up. What finally happened was that each component part of the assembly line was perfected separately, then linked up to the next, and so on.

This involved frequent visits by Auto Equipement engineers to the Viso assembly line; each unit was tried with manual `feeding' until it was perfected and was then connected to the automatic circuit originally planned, and finally delivered to Auto Equipement.

In this particular case, phases 4 to 7 of the original process overlap, and there are no separate stages as such. The procedure becomes considerably more flexible and improvization replaces formalism.

In addition, it is inevitable that our interviewee felt that he had been `taken for a ride'. Nevertheless, a number of things led him to realize that his supplier had also been deluded, since his engineers had not realized that the project was beyond the scope of present technology. For this reason, Auto Equipement showed great fairness (according to the Sales Director at Auto Equipement) but demanded the following terms:

- Special price and payment conditions;
- Penalty for delay (delivery was still not completed at the time of interview and the timetable scheduled in phase 4 was then more than 6 months late).
- Payment of travelling and accommodation expenses for Auto Equipement's engineers who went to Italy to assist in the development of the new assembly line.

Auto Equipement nevertheless made a profit out of the operation, since they gained in technology and productivity. Despite the problems, our interviewee indicated that Auto Equipement hoped to make the investments more profitable by purchasing a new assembly line from Viso, which he regards as a competent, dependable, and very flexible firm, who made the mistake of not setting up a sufficiently rigorous study plan and as a result overestimated their technical capabilities.

RELATIONSHIP WITH THE SWEDISH SUPPLIER

This was a special case for two principal reasons. Firstly, Borg is the only manufacturer in Europe to produce this equipment and secondly, Auto Equipement only contacted Borg after they had encountered protracted development difficulties. The problem to be resolved was the continuous removal of waste matter as it came out of a machine, in order to recover the lubricant oil used in cutting.

Auto Equipement had been dealing with a specialist supplier who had supplied the entire equipment. Borg, in fact, only supplied one of the component parts of this machine, but it was supplied to the manufacturer and not to Auto Equipement direct.

The investment had two objectives: first of all, to improve the waste removal function and secondly, Auto Equipement wished to recover the lubricant oil from the waste matter so that it could be re-utilized: the application of this principle enabled the firm to cut down their monthly consumption considerably, which meant that the investment would be rapidly amortized.

The equipment, in general, did not appear to require special handling, but the numerous problems that arose during the initial months of operation were all caused by the Borg component. There were two sources of trouble:

- Firstly, certain parts of the Borg component were not adapted to Auto Equipement's specific needs. This meant that the machine had to be stopped as it was

not functioning properly. Borg's engineers, who were consulted by letter, sent a new component which was perfectly adapted to the job it was to do.

- Secondly, above all, there were a number of minor incidents due to the fact that Auto Equipement's technicians did not know the maintenance `tricks' which would keep this component running smoothly.

To settle these problems, Auto Equipement requested on several occasions that Borg send their engineers to train the personnel using the machine. Borg never took the trouble to reply – not even by letter. Auto Equipement felt that Borg were taking advantage of their exclusive market position, and deplored the fact that even the installing company's technicians – who were very helpful – did not appear to have received the necessary information from Borg either. In future, Auto Equipement will buy a new component from Borg, but only because and so long as they have no alternative.

CONCLUSIONS

1. First of all, this case study points out the difference between the buying process used by Auto Equipement for capital goods, and that used for other goods, as regards the following aspects:

- The decision-making process used: the purchasing department is scarcely involved at all, and never led the negotiations.
- The complexity of the buying process;
- It should also be noted that the order is placed before certain important aspects are negotiated: the choice of supplier inevitably involves a measure of trust.

2. The case study also underlines the marked formalism of the established buying process; the different phases are clear-cut and the departments involved in each phase, the people concerned, and their role, are all rigidly laid down.

On the other hand, it was observed that this process can become quite flexible when the equipment to be purchased is complex and of crucial importance to one of the assembly lines. As was seen in the Italian example, the formalized procedure is set aside in favour of full negotiations on each aspect, which is dealt with as if it were a separate order.

3. It may be that due to unforeseen difficulties, the entire order has to be re-thought, by a re-definition of specifications. This is what happened in the Italian example; moreover, it is interesting to note that Auto Equipement were able to accept the fact that their supplier was not capable of fulfilling its undertaking. Whilst the negotiators at Auto Equipement obviously insisted on some compensation for this, they were sufficiently aware of the value of their supplier's attempts to consider continuing co-operation with him. In fact, it would seem that Auto Equipement regarded the design investment in this new product as being common to both the Italian supplier and themselves.

4. The French example shows that Auto Equipement see a risk in dealing with small suppliers, and that the amount of risk perceived depends also to a great extent on whether the management seems competent or not. One may draw a parallel with the Italian case here, insofar as there was strong interaction between the two firms in order to work out specifications in this type of situation. Auto Equipement apparently take account of the size of its supplier and work out specifications accordingly. It would be interesting to evaluate to what extent the interplay observed depends on the size ratio between the customer and its supplier.

5. The Swedish case appears to be an exception to Auto Equipement's normal working methods. The Swedish supplier is felt to take advantage of its dominant position, and the virtually complete lack of contact between the two firms is seen as an insult by Auto Equipement. It is likely that should a competitor arrive on the market, Auto Equipement would transfer its custom to the new-comer as a matter of principle.

Borg's excessive attitude may be due to short-term reasoning and to a fairly serious misjudgement of the importance of inter-personal relationships in customer purchasing behaviour.

6. To conclude, the rigidity of the buying process can be off-set by the facility with which Auto Equipement management pass on technical information. This is unusual since, as a rule, firms of similar structure usually keep their know-how secret, especially when there is a risk of suppliers divulging this information to other customers.

At Auto Equipement, the factory gates are always open: another reflection of the trust that Auto Equipement place in their suppliers, thereby succeeding in obtaining maximum transfer of technology to Auto Equipement's benefit.

SECTION 4.6 PURCHASING IN FIRMS WITH PROCESS-PRODUCTION TECHNOLOGY

CHARACTERISTIC PURCHASING PROBLEMS

A producer with a process-production technology is characterized by two features from a purchasing point of view. The first one is its dependency on raw materials and the second one its dependency on process equipment. As we have discussed earlier (in the section about marketing of raw materials) the supply of raw materials is determined by the capacity of the producers. As long as this capacity is larger than the total demand the purchasing problems are few and mostly directed to the logistic function, but as soon as there is a lack of capacity, purchasing becomes more critical. Vertical integration in different forms is, therefore, common, especially when the buying firm is highly dependent on a single raw material. By vertical integration the firm can ensure a more secure supply, but at the same time it cannot use the same tactics as when the supply exceeds demand. It is thus a question of balancing security of supply against the

freedom to change for the individual firm. This balancing is probably the most essential issue regarding purchasing of raw materials.

The markets for equipment can be difficult to handle too. The buying firm may often wish to maintain continuous contact with selected equipment suppliers in order to be able to keep abreast of technical development. As purchases are made very infrequently, it can be difficult to motivate the sellers to maintain these contacts. At the same time, the buying firm may wish to retain a certain degree of freedom in order to be able to take advantage of innovations or low prices from other suppliers. Once again, there must be a certain balance which, however, can be a little more difficult to attain, as the time perspective is long and many changes can occur both within the selling and buying firm and in the market between purchases.

The purchasing of equipment will not be further discussed here. However, the discussion in the section of marketing of equipment, especially in the case `Svensk Processteknik', indirectly illustrates the problems of capital equipment purchasing.

As we have seen above, the handling of raw materials purchasing depends on the firm's technological features. There are, of course, other factors that influence purchasing behaviour and two of the most important are discussed below:

(i) The characteristics of the supply markets: Concentration and dynamism have earlier been identified as important market features. Raw material supply markets are usually highly concentrated with only a few very large suppliers that sometimes co-ordinate their strategies and tactics. These markets are often seen as completely homogeneous from the product point of view. This is also the fact for certain markets. However, small technical differences between suppliers can be very important to the buying firm. Even a small variation in the material can have large effects in technical and/or economic terms. The supply markets may, therefore, become even more concentrated and sometimes there is no freedom at all from a purchasing point of view. It is worth noting that it may not be a question of better or worse quality, but of technical differences which are seen differently by the purchasers due to the characteristics of their own production process.

The dynamism of these markets is almost exclusively related to price fluctuations, depending on general business fluctuations or in changes in the demand/supply ratio. This problem has been discussed previously.

(ii) Organizational characteristics of the buying firm: The degree of centralization is often very high due to the extreme importance of bought-in inputs to the production process. Indeed, the managing director himself may want to take part in these relationships. Bought-in volumes can be so large that the profitability of the firm may be dependent on prices and quantities. A high degree of specialization is also usual and normally there is specialization of purchasing by a supply market. There is very seldom any external unit involved in the purchasing process, although production staff may play an important role when there are technical differences between the suppliers. In the other cases the relationships are handled by the purchasers.

Two cases will be presented in order to illustrate this discussion.

Britapaints and Colorex Two British paint manufacturers' purchasing strategies are described and exemplified. The firms are using two completely different strategies. Britapaints uses a strategy characterized by an atmosphere of trust and co-operation in the relationships. Colorex, on the other hand, uses a strategy which generates an atmosphere of distrust and hard bargaining.

Lyon Acier This is a French firm and the case describes how simple the relationships can be when the products are completely homogeneous. In one relationship, however, a small technical difference plays an important role. Another relationship shows that it can be strengthened by an `accident' if this is handled in the right way by the party that has caused it.

BRITAPAINTS AND COLOREX — The Purchasing Strategies of Two Paint Manufacturers

Malcolm T. Cunningham

INTRODUCTION

This case study compares and contrasts the purchasing strategies of two British paint manufacturers who buy raw materials from foreign sources. Both companies are part of large groups who operate in the wallpaper, vinyl wall coverings and paint industries selling through retail outlets and to industrial customers. One company attempts to nurture close and long lasting relationships with suppliers on whom it is dependent; the other seeks to make its suppliers commercially dependent on the high volume of orders which it gives and makes use of its buying power to obtain price advantages.

The paint industry comprises one link in a chain of converting raw materials by a multi-stage process into a final coloured coating for application in domestic and industrial markets. Decorative paint and paper manufacturers respond to the fashion requirements of consumers and to the special protection and environmental installation needs of their industrial customers. The high technology content of the paint products rests primarily with the developers and manufacturers of certain speciality raw materials which are used as colouring pigments, hardeners, stabilizers, extenders, etc. The paint companies act as converters, mixers, and application specialists for the blended finished products. Their expertise is essentially in the empirical field of `trial and error' to achieve successful solutions to application problems by formulating and blending different qualities and specifications of various raw materials, each serving its own unique function. Many suppliers of these speciality raw materials are capital intensive, scientifically orientated chemical companies with extensive research and development facilities.

Other suppliers are involved in the high volume production of the bulk materials with which the speciality materials are mixed.

The two paint companies Britapaints and Colorex operate within the same

industry. Their product ranges overlap to a considerable extent though Colorex is seen to operate at the higher price and quality end of the market than Britapaints. Colorex is only a little larger in size than Britapaints in terms of numbers of employees but, because of its greater capital intensity, has an output equal to twice the weight and value of that of Britapaints.

BRITAPAINTS LTD.

This is a small company, by the standards of this industry, although it operates at several factory sites. It manufactures medium quality paint products and adopts a flexible approach to paint production by utilizing standard equipment and buying raw materials of slightly varying chemical formulations. The Company has a centralized purchasing department of 6 persons working for the whole group of companies, but the crucial raw materials buying is handled by the group purchasing manager himself.

Purchasing Strategy of Britapaints

The strategy is based on the recognition by the Company that it has very limited purchasing power over suppliers, because of its own relatively small size. The policy is to buy British wherever possible and to use local suppliers for convenience and, thereby, conserve human resources. Britapaints purchases £7.2m per annum of various raw materials and, though using foreign suppliers, it only buys through UK based subsidiaries of foreign companies. In this way the Company is able to consider such suppliers as being `almost British'.

The Company uses the minimum number of suppliers possible in each product category and believes in building up long-term relationships and cultivating customer and supplier mutual loyalty to one another. As the volume of business grows, Britapaints gives its British national and British subsidiaries of foreign firms an increasing volume of orders, rather than obtain multiple sources of supply. In doing so, it hopes to consolidate the close relationships established.

A main element of buying strategy is to choose suppliers who are large, because the Company believes that such suppliers are more reliable technically and give good deliveries. More importantly, the customer is able to draw extensively upon the technical skills and product development work of suppliers, rather than engage in a disproportionate amount of research and development activity.

The Relationship with German Supplier of Resins

Telford Ltd. is the UK subsidiary of a giant German chemical firm which has specialized divisions for various chemical products. One of these divisions is a renowned paint company, which is a competitor of Britapaints, though not in the same precise sector of the market. Telford is a world leader in resin technology and is seen as being trustworthy, competent, and impressive in factory management. The supplier was first used 30 years ago and, when Britapaints merged with other paint firms, was given all orders for resin products for the new group.

Britapaints is completely dependent upon Telford for resin supplies, but this is deliberate. Telford undertake technical product and manufacturing development work for Britapaints and provide a very high level of technical advice, good service, and reliable deliveries.

Britapaints trust Telford with a great deal of information of a commercial and technical nature about its own plans and developments in the industry; they have no reason to believe that this trust has ever been abused, even though the supplier also deals with other paint firms. The emphasis, here, is on source loyalty and the continuation of a long lasting, mutually beneficial relationship.

COLOREX LTD.

This company is part of a large multi-product group in the decorative paint and wall coverings industry. It manufactures on several factory sites using specialized machinery suitable for large batch and continuous process production.

Purchasing within the group is decentralized to each product division and one buyer specializes on `wet' raw materials such as `Tall oils', which is the subject of this purchasing case.

Purchasing Strategy of Colorex

Foreign supplies are used extensively and 15 per cent of supplies come from sources outside the UK. Purchasing efficiency is the principal element of the strategy in buying; this efficiency is evaluated by comparing Colorex purchasing costs with those of other firms in the industry and also by studying buying achievements obtained against suppliers. Financial gains, through price bargaining, is the main evidence used in considering buying efficiency; such `gains' are to be found in the following tactics with suppliers:

(1) Buying at prices below those quoted on supplier's list prices
(2) Paying accounts later than specified by suppliers
(3) Treating suppliers' intended price rises as a buying challenge and adopting one of several bargaining ploys:
    (a) threaten to change suppliers as a bluff
    (b) change suppliers (but only temporarily)
    (c) delay the timing of price rises and insist on buying stocks before the price increase becomes effective.

Colorex adopts a buying strategy of trying to make its suppliers dependent on the customer by drawing them into a progressively dependent relationship after which lower prices can be obtained. Suppliers are initially chosen for their capacity and delivery capability, provided that they are technically adequate; Colorex then insists on being treated as a `favoured customer' in any subsequent situation of shortage of supplies. Colorex appear to have a low regard for suppliers and considered many to be `almost as big crooks as we are'.

The Relationship with Swedish Supplier of Oil

`Tor Wettre' is an old established, large chemical firm in Sweden who sells tall oil as a raw material to Colorex. Tall oil is produced as a by-product from the paper processing industry.

Colorex has used Tor Wettre as a supplier for 20 years. It was originally selected because the use of tall oil in paint manufacture gave the customer a technical lead over its competitors. The supplier of this oil was a secure source and Colorex could get favourable prices because, initially, it was the first customer of Tor Wettre to use the oil in the growing paint industry.

The trouble-free relationship is handled jointly by the Swedish parent company and the UK based sales subsidiary which comprises a staff of 20 people. The subsidiary handles most contractural matters, but has no discretion on price negotiations. Personal contacts on price matters are dealt with directly through Sweden.

Tor Wettre supplies almost 100 per cent of Colorex requirements for tall oil and is considered by the buyers as being a typically Swedish firm — traditional, reliable, solid, and helpful. The downturn in the paper industry has had a side effect of causing tall oil to be in short supply. Vegetable oil substitutes have had to be found and only 30 per cent of oil is now bought as tall oil. In this situation Colorex has restored its strong bargaining power with Tor Wettre in order to obtain low prices, even in a market of short supply.

CONCLUSIONS

This case study emphasizes the difference in `atmosphere' which characterizes inter-company relationships and interaction. The atmosphere in both situations discussed is created by the contrasting purchasing philosophies of the two paint customers. The two raw material purchases made by the paint companies being compared are not alike; the resins bought by Britapaints represents a technologically advanced product of their German supplier whereas the tall oil bought by Colorex is less sophisticated, being a by-product of the Swedish supplier. Greater interaction is more likely between customer and supplier for a higher technology product. However, it is not so much the products bought which distinguish the way in which the two paint companies interact with their suppliers, as their differing philosophies about their need to interact and their attitude to supplier relationships.

Britapaints are heavily dependent on almost all their suppliers for their technological skills and use their suppliers openly as an extension of their own facilities. They accept the mismatch in size and specific expertise between themselves and their suppliers. Colorex on the other hand choose relatively small supply companies from whom they can extract the maximum price concessions and commercial considerations override technical and social ones.

Britapaints operate in an `atmosphere' of trust, co-operation, and vulnerability in the power relationship with suppliers, whereas Colorex generate an atmosphere of distrust and hard bargaining.

The German supplier undertakes a great deal of Britapaints' product development and they provide a great deal of reassurance to Britapaints in the suitability of their paints for special working conditions. Multiple sourcing by Britapaints is regularly considered but rejected on the grounds of high cost and poor use of its own resources.

Both paint companies encourage long lasting relationships, but for different purposes: Britapaints in order to be given technical assistance and favoured treatment borne out of respect and trust; Colorex as a means of dominating their suppliers and obtaining price concessions and favoured treatment borne out of dependence.

LYON ACIER

Robert Salle and *Jean-Paul Valla*

INTRODUCTION

This case study shows how the importance of interaction in a relationship can be strongly diminished when the suppliers are in an oligopolistic situation regarding commonplace products. It illustrates the difficulty for the buyer to negotiate when the amount of its purchases represents a small proportion of the supplier's turn-over, even if the customer is a larger firm than the supplier. Whilst the Group's policy is to consider the purchasing department as a profit centre, the case study well illustrates the difficulty in certain cases to have this policy accepted in every-day life.

THE FIRM

Lyon Acier belongs to a large, highly diversified, iron and steel group and has two main divisions.

Almost 50 per cent of production is exported: the product is one of a fairly high technology level. In this type of industry, purchases of raw material represent most of the purchased volume and technologically the products bought are not complex.

The purchasing department has a very simple structure: four purchasing units, each headed by a buyer, with a total of 30 people in the department. These four purchasing units represent a very large percentage of turnover and 65 per cent of purchases are for raw materials alone.

Recent group policy has been to have the purchasing department considered as a profit centre by all its units; as far as Lyon Acier is concerned, it was instructed to buy the same quantity of products whilst reducing the corresponding expense by 6 per cent. To achieve this objective new principles were established by the purchasing department:

— Improve the performance of the buying department, by the recruitment of a new buyer for raw materials (a key position), with power of delegation of signature;
— Policy of opening purchases to foreign suppliers;
— Systematic questioning of the specified supplier practice each time the user in Lyon Acier specifies the supplier for a given product;
— Restriction of the `inflation' in numbers of suppliers of secondary purchases.

As regards this last point, it must be stated that about 5 per cent of purchases are affected through about 400 suppliers, whilst only 50 are required for the most important area, that of raw materials. On the other hand, the number of potential suppliers of manufacturing goods is much smaller, although sufficient to obtain a satisfactory competitive situation.

The group has taken advantage of the total purchasing volume to co-ordinate its purchases to a certain extent. This co-ordination is carried out under the responsibility of the Group Supplies Director by adding up the forecasts of the different factories, and the negotiation of open contracts with a certain number of suppliers. The purchasing directors of each unit move freely within this framework and can, without difficulty, contact new suppliers in so far as the latter seem capable of meeting reference standards set at the group level. It is partly due to this that 20 per cent of purchases in 1976 were from new suppliers.

The buyers, faced with this `flexible' co-ordination of the group purchases, also find themselves confronted by a co-ordination on the part of a number of their suppliers. This is particularly the case with the suppliers of ferro-alloys, which represent an important part of the purchases of raw materials and almost all the imported metallic raw materials.

The world market for such products (from very varied sources, such as Greece, South Africa, USA) is very dependent upon the economic situation. As usual in such cases, the buyers are often hindered in their negotiations by the cartel phenomenon. In response Lyon Acier tries to negotiate contracts lasting from three to six years. However, due mainly to fluctuating exchange rates and the impossibility of making rational forecasts, such contracts are very difficult to set up.

Changes in Buying Trends

Buying trends, in volume as well as in apportionment between France and imports, are affected by the buying policies of Lyon Acier:

— Faced with the hardening of the general business environment since 1974, Lyon Acier wishes to rationalize its product portfolio and a number of products have been (or will be) dropped, leading to a 10 per cent reduction in annual turnover for several years. The amount spent on purchases follows (or will follow) the same downward pattern;
— Lyon Acier is turning towards overseas markets in order to increase the number of potential suppliers and to obtain better prices.

Thus, we can foresee decline in French purchases parallel to that of sales. On the other hand, an increase of purchases from Germany and Italy of 10 per cent per annum is expected. Entry into Sweden seems impossible, whilst the stagnation of purchases in the United Kingdom is expected to continue.

These forecasts can be partly explained by the nature of risks which are seen to characterize buying from different countries. The primary risks perceived by Lyon Acier are:

- Germany: The exchange-rate risk;
- Italy: Delivery delays and the risk of goods not conforming to specifications;
- The UK: Exchange-rate risk and delivery delays.

Purchases of Raw Material

These represent 65 per cent of the total volume of purchases. They concern:

- Scrap iron (almost exclusively from France);
- Ferro-alloys (from various sources);
- Diverse consumer materials (coke, refractory bricks, etc.) considered as raw materials because they are direct inputs to the production activities and can be found (all or in part) in the final product.

THE FRENCH EXAMPLE: SCRAP-IRON PURCHASES

The supply of scrap-iron is highly concentrated and three firms produce about 70 per cent of the national turnover. On the other hand, the remaining 30 per cent is very widely distributed between a large number of small firms. The group obviously has agreements with the largest firms, but that does not prevent them dealing with small regional firms or even with craftsmen, provided that they are capable of delivering the minimum required quantity. This is a typical case of a commercially dominated market and there is no purchasing strategy, but rather a tactic of `flying without instruments'. In this market the standards of quality, as well as presentation are clearly defined and rigid.

The group and its counterparts of similar size, who deal with 90 per cent of the total turnover, have held a strong position on the market and have had a strong bargaining position, but for several years now, extreme shortages of scrap-iron in Italy has led to an increase in prices in France and a change in relations between suppliers and customers. The three big suppliers continue to supply their big customers while small and medium suppliers tend to sell to customers offering the best price.

The supplier chosen is the firm Tardy, which supplies the Lyon Acier steelworks with 10 per cent of their requirements. The purchasing respondent did not know the size and number of employees of his supplier and has never visited it. A counterpart from another unit of the group put him in touch with this firm, and he has been dealing with them since 1975.

There is not really any technical adaptation of the product. The salvaged scrap-iron is carefully sorted and classified: it must, in fact, correspond to precise standards of purity, size, and packaging etc., common to all steelworkers.

Although not obliged to do so, Tardy delivers regularly 20 times per year; deliveries arrive at a regular rate. Tardy have been asked to improve the presentation of the packages of metal sheeting, and this was accepted without difficulty. Terms were negotiated: Tardy state price variations a few days beforehand and accept Lyon Acier's terms of payment. In exchange, Lyon Acier give them 6-monthly forecasts to allow them to make arrangements accordingly.

Contacts are very simple, and as far as Lyon Acier is concerned, are limited to the buyer and the Purchasing Director, who sees the Tardy Managing Director once a year. The usual contacts take place on a weekly basis between the buyer and the Managing Director of Tardy.

The respondent described Tardy thus: `they are market traders, sly and cunning and call for constant vigilance. In this particular case, it has not been possible to obtain a direct reduction in prices: Tardy would be more than likely to refuse to negotiate'. The buyer, then, from Lyon Acier cannot obtain a reduction in purchase costs by negotiation alone; he has had to increase his number of visits per purchase which means he has to deal with small local firms more often than his predecessor.

THE GERMAN EXAMPLE: PURCHASES OF OIL COKE

This is basically an exceptional purchase for Lyon Acier. The percentages of carbon incorporated are always very low, and the volume of purchases remains slight (less than 1 per cent of total purchases). Because oil coke can only be produced in one kind of power station of which there are few in Europe, it is a scarce raw material. Germany is by far the major European producer; the three main European suppliers supply 70 per cent of needs and are all German. Lyon Acier is a customer of little interest to the two suppliers it uses (one German and one French) because it uses oil coke as a rich raw material whereas most other users consider it as a simple source of energy, thus consuming much greater quantities. Finally, the low product cost explains, to a large extent, the fact that the German supplier concerned is not interested in exporting and despite being a relatively large firm it has no commercial structure in France.

Technically speaking, Schwartz, the German supplier, sells a totally standard product; it is, in a way, a coincidence that it offers all the characteristics of purity demanded by Lyon Acier. The only essential requirement is that it must not contain certain impurities which could alter the mechanical properties of the final product. There are few delivery problems: four deliveries per year suffice and Lyon Acier hold stocks.

This whole context explains the fact that Schwartz has not had to undergo any adaptations for Lyon Acier (apart from a symbolic price discount). Lyon Acier is not considered, by Schwartz as a target customer. Nor has Lyon Acier made any concessions, apart from having to shorten the usual dates of payment, on which the supplier insisted.

Contact between the firms is limited to necessary exchanges of telex messages. `We saw a representative once,' says our interviewee, who claims he dare not telephone the supplier for fear of language problems. The limited contacts between the firm does not present a problem, since the buyer needs only a few annual exchanges with the person in charge of the steelworks to make purchasing decisions. The only problem is to keep an eye on the fluctuation of the franc—deutsche mark exchange rates, which led to a certain decrease in purchases for the period 1975—76.

This example illustrates the negative aspect of unequal relationships. There is no question of negotiation here; Lyon Acier's purchases are so insignificant that Schwartz consider Lyon Acier as being of little interest and Lyon Acier cannot use its size here to improve its position with respect to the supplier.

THE BRITISH EXAMPLE: PURCHASES OF REFRACTORY BRICKS

Refractory bricks are used for the interior lining of ovens. Their composition, without being extremely precise, is nevertheless well defined. These bricks have a crucial influence on the quality of the finished product and the durability of the ovens. The buyer is faced with thirty or so potential suppliers, mainly German, French, English, and Spanish. He usually deals with three of them, two French and one English, and it is with the latter that our study is concerned.

The UK supplier, Field, about whom our interviewee knew little, specializes in the manufacture of refractory products. This firm exports a large proportion of its production, but has no sales structure in France, the Sales Director visiting the main European steelworks fairly regularly. The products he supplies to Lyon Acier do not differ from the defined standards, although Field had to modify the alumina content in the bricks in order to adapt to the working practices of French steelworkers. Field, at present, provides 25 per cent of Lyon Acier's needs and delivers six times per year. Delivery times are not crucial since Lyon Acier keep a large reserve stock.

What is interesting in this instance is that Field, who first did business with Lyon Acier in 1975, thanks to the favourable variation of the franc—sterling exchange rate, reacted positively to an incident which could have had disastrous consequences on sales. What happened was that one of the first oven vaults delivered collapsed after only 60 per cent of normal usage time. Usually, steelworkers react strongly to this type of accident. Lyon Acier was no exception to the rule and notified its supplier who sent their Sales Director and a technical engineer who decided to replace the defective vault free of charge. Thus Field showed itself more concerned about customer satisfaction than most suppliers and the decision was taken to give them preference, prices being equal. This decision was moreover facilitated by the fact that Field had accepted Lyon Acier's standard terms of payment, which foreign suppliers do not usually tend to accept. Unfortunately, the exchange rate is very unfavourable to Field at present and their future appears to be jeopardized.

The English case seems to be the only one in which real negotiations took place

and a relationship of any importance built up. This was due to the combination of three elements:

— Standardization of the product to a much lesser degree (clearly shown by the accident and the technical adaptations made by Field in order to adjust to French steelworks' normal working practices);
— A less unfavourable competitive structure because cartelization is much more difficult with these products;
— Lyon Acier is obviously much more important as a target customer to Field.

CONCLUSION

The Lyon Acier case study is interesting mainly because it shows that interaction phenomena lose a lot of their relative importance when one is dealing with a very common, and technologically very simple, raw material. The product is, in a way, `depersonalized' in the sense that the overall offer is rigorously homogeneous, making cartelization easy; the customer is almost reduced to the position of `beggar' and even a large size advantage only allows him to obtain minor advantages.

It also well illustrates the difficulty of installing a policy which regards the purchasing department as a profit centre; in a homogeneous offer situation and with strong demand, the market prices are rigidly fixed and the buyer has little or no bargaining power. Thus, his only strategy is to try to find a supplier who will act differently. This usually means moving purchases away from large suppliers to small ones.

Chapter 5

Interaction Themes

SECTION 5.1 THE COMPANY CASES AND THE INTERACTION MODEL — AN OVERVIEW

The theoretical base of this project has been presented in Chapter 2. Moreover, certain groups of variables and the connections between them were also specified and incorporated into a research model. In fact, four groups of variables have been identified, these are the variables characterizing (a) the interaction processes, (b) the interacting parties, (c) the interaction environments, and (d) the atmospheres. The first three of these groups describe certain features which are believed to influence the possibilities of and obstacles to interaction between suppliers and customers. The variables which comprise the fourth group are of a somewhat different character. Earlier we have labelled this group as `intervening variables'. These variables both describe the results of previous interaction as well as the starting points for future interaction. However, this group of variables is more than just a number of summarizing concepts; it relates the other variables to each other.

The company cases presented in Chapter 4, when viewed singly, in groups or as a whole, illustrate the nature of inter-organizational relationships obtained when using this kind of approach. These `pictures of reality' emerge by examining those relationships using the four groups of interaction variables. The cases also contain a large number of examples of how different selling and buying firms deal with each other, how they interact and how different kinds of relationships are built up. It is clear that the variations seem to be very large indeed.

The discussion of the theoretical model in Chapter 2, as well as the partial analysis of the company cases in Chapter 4, have indicated a number of connections between the variables in the interaction model. So far, there has not been enough time within the research project to analyse all these connections in a comprehensive and systematic manner.

However, individual researchers within the IMP-Group have studied certain specific aspects of the model. For this purpose, they have developed those aspects theoretically and they have confronted them with the company cases. Each of these pieces of work can be seen as a `theme' derived from the interaction model. Later on in this chapter we will present some of them. Before presenting the themes, it is important that an attempt be made to present an overview of the interaction model in relation to the data in the company cases. This overview is by

no means complete and it should be seen as a suggestion as to how the interaction model can be used by researchers and practising managers. First we discuss each of the four groups of interaction variables, showing how specific company cases illustrate the impact of the variables on supplier—customer relationships. In a subsequent section, the themes are classified and presented according to the principal aspect of the model which is being explored in depth.

INTERACTION PROCESSES

The company cases provide many examples of the range of variation of the interaction processes. This applies to the short term aspects — the episodes — as well as the long term aspects — the relationships. The large variation encountered is of interest both from a theoretical and from a managerial point of view. For example, one important managerial problem is how the different processes ought to be handled. In order to penetrate that question a little bit further we will use a simple classification diagram. The diagram has two dimensions, one describing the episodes and the other the relationships. The episodes are characterized in relation to the complexity of the problems that must be solved within the episodes. The relationships are described in terms of their extensiveness (number of previous episodes). By combining these two dimensions we get a matrix which graphically is presented in Figure 5.1.

The four different types of situations that are identified in Figure 5.1 will now be discussed and at the same time examples will be provided from the marketing and purchasing cases. The discussion is intended to show typical problems that are present in different situations and how they must be solved. Each cell of the matrix will now be discussed.

		Relationships	
		Limited relationships	Extensive relationships
EPISODES	Simple episodes	I Ex: Lyon Acier with small producers of scrap iron	III Ex: Can be found in all the company cases
	Complex episodes	II Ex: Svensk Processteknik with ICP	IV Ex: Unifix with United Shipowners Ltd.

Figure 5.1 Classification diagram of interaction processes

I Simple Episodes within Limited Relationships

The situations that are characterized by simple problems in the episode and a limited previous relationship between the two parties correspond to the `classical' model of exchange situations. The buying firm can quite freely choose among the

existing alternatives and the choice is also rather easy to make as there are few decision variables because of the simple nature of the problems. The selling firm has a very limited scope for marketing activities. Almost everything is standardized.

Among the company cases there are few examples of this situation. A good one is given in the Lyon Acier case where a French firm buys scrap iron. The contacts between the buying firm and its suppliers are very simple and there are no special adaptations or other factors binding the parties together. The purchasing and the selling can be handled in a manner characterized as a straightforward market exchange.

II Complex Episodes within Limited Relationships

Situations characterized by complex episodes and limited relationships may be exemplified by the situation where two companies are going to deal with each other for the first time. Buying and selling of major capital equipment are other typical examples. The most distinctive feature of these situations is that the episodes must be a complete business transaction in itself; no stages can be left out because the relationship between the two companies is limited. This also means that the companies do not have any common routine to follow for problem solving and there is a need to design a procedure. Another restriction is that the two firms within the episode must demonstrate their trustworthiness to each other as this is not `guaranteed' by an extensive relationship. The complexity within the episode, the need for taking care of all problems within it, and the need for social exchange all together require a careful planning of the exchange. Both the buying and the selling company must organize themselves with respect to which specialists to involve, when they should be involved and institute certain check points to ensure that the whole exchange is evaluated.

There are several examples in the company cases of this kind of situation. One very good example is when Svensk Processteknik sells a few machines to an Italian customer — ICP. The episode involved several persons on each side and it took two years. The organizing of the persons involved, the timing of different activities and the ability to adapt their own procedures to those of the counterpart are important marketing and purchasing skills in such a situation.

III Simple Episodes within Extensive Relationships

Simple episodes within well established relationships are very common in the company cases. One reason for developing close relationships is to obtain such a situation, i.e. to simplify the episodes. The episodes become part of the relationship. The companies do not have to solve all problems within the episode because the relationship is used as an insurance. Thus, problems do not have to be foreseen, but can be taken care of when they occur. The firms have established routines for solving problems and they know the other party so well that they dare trust him.

A danger with this kind of situation is that it can be handled in too routinized a

way. For example, one party may not detect important problems that occur, or else problems may be dealt with by the wrong person (on a level too low in the hierarchy).

An important skill both of marketing and purchasing in these situations is to have routines or systems to alert their own organization when the other party starts to perceive the situation as more complex than before.

Simple episodes within established relationships can be found in all the company cases.

IV Complex Episodes within Extensive Relationships

This kind of situation may arise when there is a crisis or a need for change in an established relationship. This change may be of a technical character, as for example when the buying firm requires product development or the selling firm has suggestions regarding this matter. The change may also be commercial, such as when other potential parties in the wider market environment have undertaken some activity of major importance.

A typical feature of these situations is that both sides primarily want to find the solution within the established relationship. Both sides have invested in the relationship with the counterpart and they are, therefore, highly motivated to try to find a solution within it.

There are several examples of this situation in the company cases. A very good one is found in the Unifix case. In a situation where the relationship between Unifix and one of its large customers, United Shipowner Ltd., is threatened by the new owner of the customer firm. The two companies together co-ordinate their activities in order to protect their mutual relationship. As already described under III', it is very important for the parties not to misjudge the situation, that is not to act in too routinized a way.

The discussion of the four different situations illustrated above, can be summarized in the following way. The main difference between limited and extensive relationships are that the episodes in the extensive relationships must be seen and handled as a part of the relationship and not in an isolated way. In the limited relationship the episode must be treated as a totality in itself and the parties cannot rely on implied agreements. The main difference between complex and simple episodes is that when there are complex problems that must be solved within the episode, there is a clear requirement for organizing the problem solving process in an efficient way by both parties.

INTERACTING PARTIES

Our approach builds on the assumption that the characteristics of the parties constitute an important aspect of the relationship between them. The perception by one party of its counterpart influences its behaviour, and furthermore, this is influenced by its perception of how the counterpart in its turn perceives it.

The importance of this group of variables has been demonstrated earlier in this

book by our way of structuring the company cases in Chapter 4. There we used the technology of the parties as the main variable. For supplier parties we use three categories of product technology and for customer parties three categories of manufacturing technology.

Following the style of our analysis of interaction processes, we will again use a simple diagram in order to identify different situations. These situations will be discussed in terms of how they can be handled and will be illustrated by some of the company cases. One important attribute of the two parties in relation to each other is their mutual knowledge of each other. If they know each other well they also know how to deal with each other, whereas they have to learn this if that knowledge is missing. Another important attribute is how well the two parties fit together (Mattsson, 1975). Substantial technical differences between them can make co-operation difficult. By way of contrast, firms can technically fit together, for example where the supplier has a special skill or feature which the customer can use to his advantage. Social differences are another type of obstacle. Differences in marketing and purchasing strategies, as discussed in the introductions to the cases in Chapter 4 can also hinder or facilitate interaction between the parties.

Mutual knowledge and the structural fit are used as the two dimensions that constitute our classification diagram for the interacting parties. This is described in Figure 5.2. Each of the four cells in the diagram will now be discussed in some more detail.

The structural fit between the two parties	The two parties' knowledge of each other: Unfamiliar	The two parties' knowledge of each other: Familiar
Not Matching	I Ex: Siderex with Foucher	III Ex: Swesteel with an Italian customer
Matching	II Ex: Sud Composants with Borg	IV Ex: Almost all cases

Figure 5.2 Classification diagram of the interacting parties

I Unfamiliar Parties without Structural Fit

In this kind of situation the two parties first have to get to know each other. During this learning process (going from Cell I to Cell III), they realize that there are differences between them which make it difficult to develop the relationship. If the differences are not too large the parties can try to adapt to each other. It is possible for the interaction to continue without adaptations, but the relationship will then probably not develop into a close one. If there are substantial differences between the parties there is no purpose served by continuing the interaction if both of them have access to other alternatives.

The interaction of the Italian firm Siderex with its French customer Foucher is a good example of this situation. Siderex had to adapt in several ways in order to match its customer. Also in relation to other foreign customers, Siderex had the same kind of problems. As a consequence, it had to develop its own marketing organization.

II Unfamiliar Parties with Structural Fit

The difference from Cell I is that during the learning process the two parties realize that they fit together and this will probably intensify the interaction process.

It is easy for both sides to benefit from the exchange and naturally this will motivate them to participate in further exchanges. One important problem for both buying and selling firms is to find counterparts belonging to this cell. The companies must try to find counterparts that fit them in technical and social terms as well as in a strategic sense. This problem will be more fully discussed, at least for marketing firms, in Chapter 6.

There are many examples of this situation in the company cases. One very appropriate one is Sud Composants' interaction with the Swedish firm Borg. Sud Composants can match Borg technically and this is central during the first phase of their relationship. Later it can also match Borg organizationally, it can help Borg on the American market, which is important in order to intensify the inter-action.

III Familiar Parties without Structural Fit

Here the parties know each other well, but they also know that they do not match each other in some respect. Still the parties can make good use of each other in certain situations or for special purposes. The relationship can thus continue, but it will not develop into a close one unless one or both of the parties changes in some way. In situations when substantial changes take place, such as large investments or major organizational changes, the parties have to re-evaluate the situation, to take advantage of the better fit. Swesteel's marketing strategy is to develop its relationships by technical co-operation with the customers, but it has failed to develop the relationship with one of its very old Italian customers due to the customer's lack of interest. The two companies thus do not match each other, but the interaction still continues. Other examples of the same problem can be found in the introductions to the various sections of the case study Chapter 4 where technological and strategic differences give rise to different types of relationships.

IV Familiar Parties with Matching Structural Fit

This situation is characterized by the absence of structural or knowledge obstacles to the interaction. Mutual adaptation of products, administrative systems and ways of doing business has usually occurred over time. Here the only problem is

that the parties have to observe what will happen to the relationship when major changes occur. The divestment of a product from the range, a new organization design or even a new manager may change the situation to one which more closely resembles Cell III. There are a lot of examples of this situation in the cases.

To summarize, the knowledge dimension is related to the information exchange between the parties. It is also important to notice that the extent to which the parties get to know each other is related to the characteristics of the exchange, i.e. the episodes. If there are complex problems that must be solved in the episode the two parties have to know more about each other than if they are simple. The degree to which the two parties fit together is related to their technical and social features as well as to their strategies. Differences between the two parties make the interaction more difficult and more resources must be applied, for example, adaptations have to be made if the two parties are to make effective use of each other.

INTERACTION ENVIRONMENTS

The interaction between the two parties does not take place in a vacuum. On the contrary, it is part of a larger social system. Thus, the features of the environment influence the interaction in several ways. For instance, the environment may determine the alternatives open to both the selling and the buying firm.

In order to simplify the complex issues involved we can take as a starting point a simple diagram derived from Thompson (1967). One dimension of this diagram, shown in Figure 5.3, is related to the degree of environmental stability or dynamism and the other describes the homogeneity of the environment.

Market stability refers to the nature of market structure and demand whereas market homogeneity refers to the extent to which suppliers and customers in the market are similar and capable of being substituted. In the discussion which follows, we will focus on one part of the environment, i.e. the market, that consists of other buyers and sellers of the product that is exchanged within the relationship.

The four cells will now be discussed in turn.

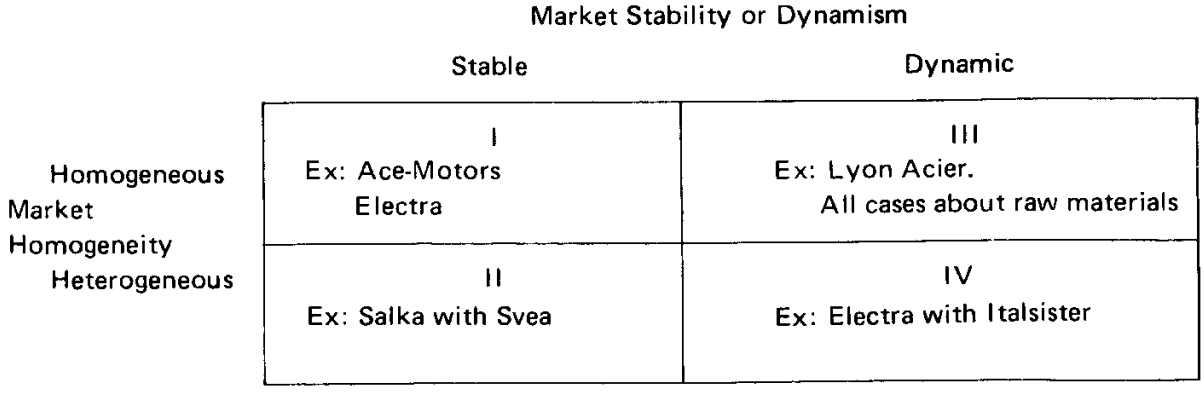


Figure 5.3 Classification diagram of interaction environments

I A Stable and Homogeneous Environment

The relationships that exist in a stable and homogeneous environment are rather simple to handle. It is easy for each party to see if the relationship fulfils `normal' requirements as it can be compared directly with similar relationships in the environment. The stability, furthermore, makes it easy to survey all alternatives.

It is difficult to find good examples of this kind of situation in the company cases. The purchasing of minor components by Ace Motors and by Electra show similarities, but in neither of these two cases is the environment completely stable.

II A Stable and Heterogeneous Environment

The problems with relationships that belong to this cell are mostly connected with difficulties of evaluation because other relationships in the environment are different in some respects. This is particularly problematic since it is these differences which also make it necessary to choose the counterpart carefully.

A rather good example of this situation is the relationship between Salka and Svea. Salka purchases precision castings from Svea. There are differences between various suppliers as well as among the buying firms. However, the technology is well developed and there are only small changes on the market (at least if we do not consider 1973 which was a very special year in many markets due to the energy crisis). The differences among the suppliers make it difficult to change counterpart for Salka.

From a managerial point of view this kind of environment makes it necessary to re-evaluate the relationship now and then. The parties must observe and be sensitive to the alternatives that exist. A special problem is that changes take time and can only be done over quite long periods of time.

III A Dynamic and Homogeneous Environment

In this cell, timing is a very important aspect of the relationship. Prices and delivery lead times in certain environments may vary with a very large amplitude. This is a phenomenon which is particularly true of many raw material markets (as has already been discussed in the section of Chapter 4 dealing with the marketing of raw materials). Dynamism can he handled in two different ways. One is to try to smooth out the variations by building up very close relationships involving long-term contracts or even vertical integration with one's counterparts. The other, opposite, way, is to try to use the variations to speculate and then one has to deal with several counterparts simultaneously in a strictly business type market exchange. Multiple sourcing by customers is a typical illustration and this is exemplified by the Lyon Acier case.

IV A Dynamic and Heterogeneous Environment

Here it is very important that each relationship is handled and developed with

considerable skill and attention. The heterogeneity of the market makes it difficult and costly to change counterparts and, therefore, large resources can be put into the existing relationship. A very good example of this situation is given by Electra's relationship with Italsister. Electra is not sure that Italsister is keeping up in technological development, but there are very large difficulties for them to change.

To summarize: A dynamic environment makes it necessary to develop the relationship or to be prepared to switch to another counterpart. A heterogeneous environment makes it more important to choose the right counterpart as well as making it more difficult to change from one counterpart to another.

ATMOSPHERES

An atmosphere affects and is affected by a specific interaction process between two specific parties in a specific environment. The atmosphere is thus dependent on all the three other groups of variables. It is a very central group of variables in our analysis. These variables can be seen as intervening variables which means that they are the mechanisms by which the other variables are related to each other. Therefore, they can also be said to be the variables that makes it possible to understand the way interaction processes develop. This is illustrated in Figure 5.4.

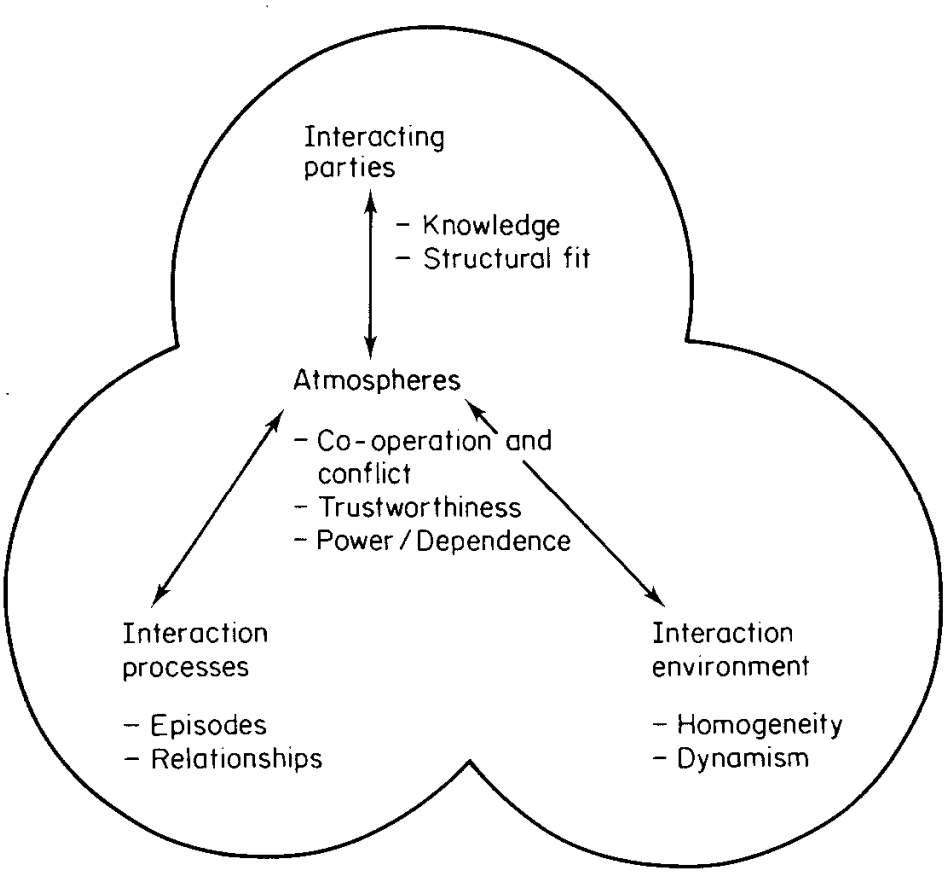


Figure 5.4 The connection between atmospheres and the other three groups of variables

An atmosphere is thus dependent on all the other variables, but in a certain situation one specific variable can be very dominating. In the Britapaints and Colorex case the purchasing firm's strategy turns out to be very important. In the same way, the reputation of the counterpart can virtually determine the atmosphere, as in the case about several English suppliers to Antriebeswerke AG.

Although one variable can be dominant in relation to the atmosphere, more usually it is dependent on the combination of several variables. Two examples from the company cases help to illustrate this.

The first example shows how the atmosphere in terms of trustworthiness, co-operation and closeness is built up between two companies.

Sud Composants, a French supplier of components, was first perceived by a Swedish purchasing firm, Borg, to be a supplier of standard components in a rather homogeneous environment. However, Sud Composants' activities made Borg change its perception of its counterpart and probably also about the market. Borg realized that there were important differences between the suppliers and that Sud Composants could offer a new solution to Borg's problems. In the end Borg is using Sud Composants in several ways. Sud Composants' abilities and its way of handling these made Borg trust it and encouraged it to use Sud Composants in a much more extensive way.

The second example shows how the opposite can happen, how the atmosphere can change for the worse due to changes in other variables. Sprinter had a very close and old relationship with Rubbercraft. The episodes were perceived as simple and the relationship as extensive. The two parties knew each other well and they were also well matched. There were some problems — a mismatch — in the timing of deliveries, but this was not perceived by Sprinter to be a unique feature of Rubbercraft, but rather as a typical phenomenon of the market. Two factors made the atmosphere change from co-operation and closeness to conflict and distance. One important person was changed in Sprinter — causing the parties to know a little less about each other — combined with a claim from Rubbercraft for a substantial price increase. The increase was of such a magnitude and communicated in such an unacceptable way that the representatives of Sprinter did not perceive the new episode as simple. The result of the process which was initiated by this combination of events was very painful to Rubbercraft.

The atmosphere can be influenced by changes in one or several of the other variables. An important characteristic of the atmosphere is that in the positive direction, it can only develop slowly and gradually.

It takes time to get an atmosphere of co-operation and mutual trust. In the negative way it can go much faster. As a consequence, it is important for both buyers and sellers to constantly observe the atmosphere. A change in a single variable related to one's own organization or to the other party, or in the environment or within the process has to be squarely faced if the atmosphere is not to be destroyed. If a new situation is dealt with in an appropriate way the change can be used in a positive way. In the company cases there are several examples of how crises between the counterparts have developed into fruitful new developments of

the relationships. On the other side an insensitive or irresponsible way of acting, as for example in Rubbercraft's case, can lead to a break in the relationship even after only a small change in some of the other variables.

SECTION 5.2 INTERACTION PROCESSES

The classification schemes which have been presented earlier in this chapter have all been partial in nature, except the one concerned with the atmosphere. Two aspects of interaction processes (episodes and relationships) have been combined in order to classify the processes. Similarly, two aspects of the interacting parties (knowledge and structural fit) have been combined to characterize the situation in terms of how the parties are related to each other. Finally, two aspects of the environment (homogeneity and stability) have been examined. This partial analysis has been undertaken in order to illustrate how the model can be used to develop ideas or to structure problems. However, one important attribute of the interaction model is that all the different groups of variables must be seen together. Some of the more comprehensive company cases presented earlier accomplish this, but only for specific companies. The seven themes or articles that constitute the rest of this chapter also attempt to deal with relationships in their entirety, but with different perspectives or focuses. The differences in perspectives have been used to categorize them into four sections. In this first section, the focus is on the interaction processes. In the next, the focus is on the parties, in the third, on the environment, and in the last one on the atmosphere.

Two aspects of the interaction processes have already been identified and discussed earlier in this chapter; one related to the episodes and one to the relationships. The episodes were described in terms of complexity and the relationships in terms of extensiveness and were summarized in Figure 5.1. In one of the themes that is included in this section, the dynamic features of supplier—customer interaction are considered because the focus is on the development of relationships. Five different stages are identified: these are (1) pre-relationship stage, (2) early stage, (3) development stage, (4) long-term stage, and (5) final stage. For each stage different problems are discussed and those aspects of the interaction process, such as adaptations, commitments, and contact patterns, which were identified earlier, are systematically related to the development of the relationship. The theme concludes with some implications and recommendations for purchasing and marketing management.

In the second theme one special aspect of the interaction processes, the inter-organizational personal contact patterns, is analysed in greater detail. The contact patterns are studied in terms of their style, intensity, importance, and relation to other interaction variables. Special attention is given to the role of personal contacts. Six different roles are identified: these are (a) information exchange role, (b) assessment role, (c) negotiation and adaptation role, (d) crisis insurance role, (e) social role, and (f) ego-enhancement role.

THE DEVELOPMENT OF BUYER—SELLER RELATIONSHIPS IN INDUSTRIAL MARKETS

David Ford

INTRODUCTION

Many of the cases in this book have shown that industrial firms establish buyer—seller relationships which are often close, complex, and frequently long-term. Despite this, the nature of these relationships have, until recently, received scant attention in the literature.' Instead, marketing writers have been more concerned with analysis of the (albeit complex) process by which buying firms arrive at *individual* purchase decisions, and the ways in which the seller can influence this process in its favour.

This theme examines the nature of buyer—seller relationships in industrial markets by considering their development as a process through time. It is particularly concerned with the following factors:

What is it that makes a buyer establish and develop relationships with one or a few suppliers, as an alternative to `playing the market'?

How do the relationships between buying and selling firms change over time? What are the factors which aid or hinder the development of close relationships? Which of these are within the control of the two companies?

What are the implications of close buyer—seller relationships for the two organizations involved? What problems can they lead to? How are the day-to-day dealings between the companies affected by, and how do they affect the overall relationship?

The Interaction Approach developed in this book sees buyer—seller relationships taking place between two *active* parties. This is in contrast to the more traditional view of marketing which analyses the *reaction* of an aggregate market to a seller's offering. The Interaction Approach considers that either buyer or seller may take the initiative in seeking a partner. Further, both companies are possibly involved in adaptations to their own process or product technologies to accommodate each other. Neither party is likely to be able to make unilateral changes in its activities as buyer or seller without consultation, or at least consideration of the possible reactions of their individual opposite numbers. Thus, industrial marketing and purchasing can properly be described as the `Management of Buyer—Seller Relationships'.

The Nature of Relationships

Not all of the dealings between industrial buying and selling firms take place within close relationships. There are clear differences between the supply of paper clips and automotive components, or lubricating oil and factory buildings. The

product and process technologies of the two companies are important factors in determining the nature of buyer–seller relations. Also important are the buyer and seller market structures which exist and hence the availability of alternative buyers and sellers.

Companies will develop close relationships rather than play the market, where they can obtain benefits in the form of cost reduction or increased revenues. These benefits are achieved by tailoring their resources to dealing with a specific buyer or seller, i.e. by making `durable transaction specific investments' (Williamson, 1979). These investments mark major *Adaptations* by a company to the relationship. By definition, they are not marketable, or at least their value in other transactions is less than in the specialized use for which they were intended. Therefore, these adaptations mark *a Commitment* by the buyer or seller to the relationship. They can be seen most clearly in such things as a supplier's development of a special product for a customer, a buyer's modification of a production process to accommodate a supplier's product or the joint establishment of a stock facility in a neutral warehouse. On the other hand, companies can be involved in `human capital investments' (Williamson, 1979) i.e., alterations in procedures, special training, or allocation of managerial resources. These human adaptations produce savings by the familiarity and trust which they generate between the parties.

Overall Relationships and Individual Episodes

The complexity of buyer–seller relations and the importance of mutual adaptations means that the analysis of relationships must be separated between the overall relationship itself and the individual *episodes* which comprise it. Thus, each delivery of product, price negotiation or social meeting takes place within the context of the overall relationship. Each episode is affected by the norms and procedures of the relationship as well as the atmosphere of co-operation or conflict which may have been established. Additionally, each episode affects the overall relationship and a single episode can change it radically, e.g. a relationship can be broken off `because' of a single failure in delivery. In fact, this failure is more likely to be the culminating episode in a worsening relationship. Thus, only a partial analysis of buyer–seller relations is achieved by researching individual episodes, e.g. a particular buying decision. On the other hand, an incomplete picture is obtained by examining the overall atmosphere of a relationship, for example in terms of power and dependency. Thus it is important to analyse *both* individual episodes *and* the overall relationships as well as to understand the interaction between the two.'

THE DEVELOPMENT OF BUYER–SELLER RELATIONSHIPS

This theme is less concerned with the reasons for the choice of buyer or seller partners (although this is acknowledged as a question of considerable importance!) Instead, it analyses the process of establishment and development of

Table 1 The development of buyer–seller relationships in industrial markets – summary

1 The pre-relationship stage	2 The early stage	3 The development stage	4 The long term stage	5 The final stage
Evaluation of new potential supplier	Negotiation of sample delivery	Contract signed or delivery build-up	After several major purchases or large scale deliveries	In long established stable markets
Evaluation initiated by: – particular episode in existing relationship – general evaluation of existing supplier performance – efforts of non-supplier – other information sources – overall policy decision	Experience – Low	– Increased	– High	
	Uncertainty – High	– Reduced	– Minimum development of institutionalization	Extensive institutionalization
Evaluation conditioned by – experience with previous supplier – uncertainty about potential relationship – 'Distance' from potential supplier	Distance – High	– Reduced	– Minimum	
	Commitment Actual – low Perceived – low	Actual – increased Perceived – demonstrated by informal adaptations	Actual – maximum Perceived – reduced	Business based on industry Codes of Practice
Commitment – zero	Adaptation High investment of management time. Few cost savings	Increasing formal and informal adaptations. Cost savings increase	Extensive adaptations. Cost savings reduced by institutionalization	

relationship over time by considering five stages in their evolution. We should also note that the process described here does not argue for the inevitability of relationship development. Relationships can fail to develop or regress depending upon the actions of either party or of competing buyers or sellers. Throughout the examination, the bilateral nature of relationships will be stressed, particularly the similarity of the buyer's and seller's activities. The five stages are illustrated in Table 1. Throughout the analysis we consider the variables of experience, uncertainty, distance, commitment, and adaptations.

Stage 1 The Pre-relationship Stage

Previous authors have stressed the *inertia* of buying companies, when it comes to seeking new sources of supply.' Buyers may continue with existing sources with relatively little knowledge or evaluation of the wider supply markets available to them. This situation is seen in the *Sprinter* case. We will take as our starting point the case of a company which has grown to rely on a main supplier for a particular product purchased on a regular basis, as in the case of equipment, or continuously as with a component.

In these circumstances, a decision to evaluate a potential new supplier can be the result of a particular episode in an existing relationship. For example, *Sprinter* started to evaluate alternative suppliers following a major price increase by a company, which had until then supplied all its requirements for a certain product.

Other reasons which may cause evaluation of new potential suppliers include; a regular vendor analysis in which the performance and potential of existing suppliers is assessed; the efforts of a non-supplying company to obtain business, perhaps based on a major change in its offering, e.g. a new product introduction; some change in requirements or market conditions experienced by the buyer, e.g. a UK car manufacturer began evaluating overseas sources for windscreens following the move towards tempered glass for which there was a European capacity shortage.

Alternatively, the evaluation of potential suppliers can be the result of a general policy. For example, widespread industrial troubles in the UK in 1974 `the three-day week' caused *Ace Motors* to adopt the policy of obtaining approximately 40 per cent of its components from overseas. It then started a search to find and evaluate potential sources of supply to carry out this policy.

On the other hand, the evaluation of potential *customers* by *a seller* forms part of the process of marketing and market development. Thus we may expect that this conscious evaluation is more likely in the case of a seller company. However, it is also possible for a seller to rely on existing customers during long-term relationships with little knowledge or evaluation of alternatives. The close relationships with its UK customer by *Belter Metals is* an example of this.

A company's evaluation of a potential new supplier or customer will take place without any commitment at this stage. The evaluation will be conditioned by three factors; experience, uncertainty, and distance. Experience in existing and previous relationships provides the criteria by which the potential and performance of a

new partner will be judged — a partner of which the company has no experience. Both companies will face uncertainty about the potential costs and benefits which are likely to be involved in dealing with a new company. The costs can be separated into those involved in making a change to a particular partner, e.g. in a seller modifying its product to suit that of a new buyer. Additionally, there are the opportunity costs involved in the continuing relationship, when compared with alternative partners, e.g. in a buyer having to accept less frequent deliveries.

The distance which is perceived to exist between a buyer and seller has several aspects:

Social distance The extent to which both the individuals and organizations in a relationship are familiar with each other's ways of working.

Cultural distance The degree to which the norms, values, or working methods between two companies differ because of their separate national characteristics.

Technological distance The differences between the companies' product and process technologies.

Time distance The time which must elapse between establishing contact or placing an order, and the actual transfer of the product or service involved.

Geographical distance The physical distance between the two companies' locations.

Technological distance is likely to be great in evaluations for the purchase of innovative products. Social distance will be considerable in all new relationships as the companies know little of each other. This is combined with large cultural and geographical distance when the companies are dealing across national boundaries.' Finally, both companies will be considering a purchase which is unlikely to take place for a considerable time, with consequent apprehension that it will not come to fruition as desired.

We can now see the effects of these variables of experience, uncertainty, distance, and commitment in the early stages of dealings between the companies.

Stage 2 The Early Stage

This is the time when *potential* suppliers are in contact with purchasers to negotiate or develop a specification for a capital goods purchase. This stage can also involve sample delivery for frequently purchased components or supplies. The stage can be characterized as follows:

Experience

At this early stage in their relationship, both buyer and seller are likely to have

little *Experience* of each other. They will only have a restricted view of what the other party requires of them, or even of what they hope to gain from the relationship themselves. No routine procedures will have been established to deal with issues as they arise, such as sample quality, design changes, etc. These issues can only be resolved by a considerable investment of management time at this stage. This investment of human resources is likely to precede any investment in physical plant.

Uncertainty

Human resource investment will be made at a time of considerable uncertainty, when the potential rewards from the relationship will be difficult to assess and the pattern of future costs is undetermined.

Distance

There will have been little opportunity to reduce the distance between the parties at this early stage in their dealings:

Social distance There will be a lack of knowledge between buyer and seller companies as well as an absence of personal relationships between the individuals involved. This will mean that many of the judgements made of each company will be on their reputation, as a substitute for experience of their abilities.

Geographical and cultural distance Geographical distance is of course, beyond the control of the seller except in so far as it can be reduced by the establishment of a local sales office or by sending staff out to the customer on a residential basis. Cultural differences can only be reduced by employment of local nationals. The lack of social relationships means that there is nothing to reduce the effects of geographical and particularly cultural distance. This can result in a lack of *trust* between the companies. For example, *Unifix* believes that they are simply being used as a source of information and that the customer has no intention of placing major orders or building a relationship. Further, the distrust of an individual supplier can cause a purchaser to place emphasis on cultural stereotypes — e.g. a customer may attach importance to the alleged `discipline' of German suppliers, as in the *Teximac* case, as opposed to a lack of faith in `undisciplined' British suppliers shown by *Maschinentechnik und Motoren.*

Technological distance Inexperience of a supplier's product will emphasize any differences which may exist between the product or process technologies of the two companies.

Time distance In the early stage of a relationship, companies are likely to be negotiating about agreements or transactions which may only come to fruition at some considerable time in the future. This maximizes the buyer's concern about

whether he will receive the product in the form specified and at the promised price and time. Similarly, the seller will be concerned as to whether orders being discussed will ever materialize in the way expected.

Commitment

Both companies will be aware of the risks involved and will have little or no evidence on which to judge their partner's *commitment* to the relationship. In fact, it is likely that the actual commitment of both parties will be low at this time. Thus, perceptions of the likely commitment of the other company are strongly influenced by factors outside the relationship such as the number and importance of its other customers or suppliers.

The actions of seller and buyer in the future will be influenced by their initial assessment of the performance and potential of their partner. Their judgement of the place and importance of this relationship within the company's portfolio of suppliers or clients will also be important. Thus, a US engineering manufacturer clearly separates those `development suppliers' from others, very early in their dealings. It is these suppliers who receive the customer's investment of time, money, and expertise to build the relationship. It may be that only one of the partners may seek to develop the relationship, while the other remains passive. Also, efforts at development may founder, either because of the unwillingness of the partner or the incompetence of the initiator in overcoming the problems inherent in the early stages of a relationship.

We can consider the development of a relationship beyond the early stage in terms of the tasks of building experience, increasing commitment and the associated reduction in uncertainty and distance.

Stage 3 The Development Stage

The development stage of a relationship occurs as deliveries of continuously purchased products increase. Alternatively, it is the time after contract signing for major capital purchases. Staged deliveries may be being made or the supplier may have started work on the item. Both buyer and seller will be dealing with such aspects as integration of the purchased product into the customer's operations or pre-delivery training, etc.

Experience

The development stage is marked by increasing experience between the companies of the operations of each other's organizations. Additionally, the individuals involved will have acquired some knowledge of each other's norms and values.

Uncertainty

The uncertainties which exist for both parties in the relationship will have been

reduced by experience. In particular, the adaptations required to meet the wishes of the partner company will have become more apparent and the costs involved in these adaptations will also become clearer. Each company will be better able to judge the adaptations to meet its own requirements. These include those made by itself and those which it should require from its partner.

Distance

Social distance This is reduced by the social exchange which takes place between the companies. As well as increasing their knowledge of each other, these personal relations establish *trust* between individuals. Nonetheless, this trust cannot be based upon social relationships alone. It also requires personal experience of the other company's satisfactory performance in exchange of product or services and finance.

Geographical and cultural distance The reduction in social distance also con-tributes to a lessening of the effects of geographical and cultural distance. However, in a relationship between companies in different countries, it is possible that the seller company may reduce geographical and cultural distance through the establishment of a local office and employment of local nationals as business builds up.

Technological distance The adaptations which companies make to suit each other reduce the technological distance between them. Thus, their respective products, production and administrative processes become more closely matched with each other. This produces consequent savings for one or both parties.

Time distance The experience of transactions means that the time distance between negotiation and delivery is eliminated in the case of continually delivered products. However, in the case of irregular purchases of, for example, capital goods then each cycle of order and delivery can be marked by similar time distances. Nevertheless, the importance of this distance decreases as the companies' mutual experience and trust of each other builds up.

Commitment

Much of a company's evaluation of a supplier or customer during the development of their relationship will depend on perceptions of their commitment to its development. Efforts to reduce social distance are one way for the supplier to demonstrate commitment. Commitment can also be shown in other ways:

> In can be indicated by `Adapting' to meet the needs of the other company, either by incurring costs or by management involvement. It is useful to separate these adaptations into *Formal* adaptations. which are contractually agreed between the companies and *Informal* adaptations which may be

arranged subsequently, to cope with particular issues which arise as the relationship develops. It is possible that the formal adaptations between companies may be dictated by the nature of the industry, e.g. that special products must always be developed for individual customers. On the other hand, a supplier's informal adaptations beyond the terms of a contract are often an important indicator of commitment.' For example, *Ace Motors* emphasizes `flexibility' as a major criteria for assessing the commitment of suppliers, such as in arranging a rapid increase in supply to cope with a sudden demand change.

In the international context, a company can demonstrate its commitment to a general market. This can be done by setting up a sales or buying office in that market. For example, a UK manufacturer and a French company had not progressed beyond the stage of exchanging `letters of intent' to buy. This was despite being in contact with each other for over two years. It was clear that the buyer doubted the supplier's commitment to it or the market, because of its unwillingness to establish a French office or assign specific personnel to the relationship during its development. The unwillingness of *Autostart* to invest resources in France until after business had developed is noteworthy in this context.

Finally, a company can emphasize commitment to a relationship by the way in which it organizes the contact patterns with its partner. This comprises both the level of personnel involved and the frequency of contact. The relation between these two aspects and the growth of business is clearly seen in the *Ace Motors* case, while the low level of contact with a supplier to whom the company is not committed is evident in the *Antriebwerke* case. Similarly, the *Autostart* company sees its contact pattern as a way of solving problems speedily, while *Salka* has encouraged inter-departmental groups in its company and in its suppliers to develop co-operation and mutual adaptations.

Adaptations

A company's commitment to a relationship is often underlined by its *`flexibility'* in meeting problems in the relationship. The *Ace Motors* case includes a number of examples of this. Here, the company's main evidence of the commitment of its suppliers appears to be their flexibility in meeting problems.

Clearly a company's commitment of resources to the development of a relationship is related to its assessment of the existing and future importance of that relationship within the context of its other dealings. The process of development of an intercompany relationship is associated with an increasing level of business between the companies. Over time, many of the difficulties existing in the early stages of a relationship are removed through the processes we have described in the development stage. However, the process of development does not continue indefinitely. The relationship can be discontinued by either party in the development stage on the basis of their assessment of its potential or the performance of the other party. Even if this does not occur, the character of a

relationship will nevertheless change gradually. The changes which slowly develop are of vital significance to both buying and selling firms and we now turn to their description.

Stage 4 The Long-term Stage

A number of cases in this book have illustrated long-established buyer–seller relationships. The long-term stage is characterized by the companies' mutual importance to each other. It is reached after large scale deliveries of continuously purchased products have occurred, or after several deliveries of major unit products.' Both *Belter Metals* and *Svefo* are each heavily dependent on a single long-term relationship with a customer in their own country who is responsible for a large proportion of their sales. Similarly, *Unifix* has a relationship with a British customer of over twenty years' standing whilst three of the relationships described in *Autostart* are over ten years old. On the other hand, not all relationships reach this age, or indeed exhibit the characteristics of the development stage as have been described. For example, *Autostart* has a relationship which appears to be `fixed' in the early or trial stage, possibly because of a lack of commitment of resources. On the other hand, it is possible for a relationship to acquire in a short time some of the characteristics we shall describe as being associated with the long-term stage. This is because of the importance which the companies attach to the relationship and their investment in it. We can now outline some of the characteristics of the long-term stage.

Experience

The considerable experience of the two companies in dealing with each other leads to the establishment of standard operating procedures, trust, and norms of conduct. For example, a UK supplier of components to a German truck producer has arrangements for deliveries against three month `firm' and six month 'tentative' orders. Prices are negotiated on an annual basis with an effective date of 1 January ... `although we often don't get round to firming them up until well in the spring, so we just apply them retrospectively'. Similarly, *Unifix* is prepared to start construction of an individual unit costing up to £100,000 on the basis of a verbal order from a main customer. Formal orders often follow much later.

Uncertainty

Uncertainty about the process of dealing with a particular partner is reduced to a minimum in the long-term stage. Paradoxically, this reduction in uncertainty can create problems. It is possible that routine ways of dealing with the partner will cease to be questioned by this stage. This can be even though these routines may no longer relate well to either party's requirements. We refer to this phenomenon as *Institutionalization.* For example, discount structures may have become unrelated to developing delivery patterns, product variety may involve increased

production costs for the seller whilst the buyer may be able to use a much narrower range of product.

These institutionalized patterns of operation make it difficult for a company to assess its partner's real requirements and so it may appear less responsive or committed to the relationship. Institutionalized practices may also allow a company to drift into over-dependence on a partner or incur excessive costs in its dealings. One company may exploit the other's institutionalized practices and lack of awareness and hence reduce its own costs at the expense of the partner. Finally, institutionalized practices in a relationship can affect a company's whole organization and hence its development of other relationships.

For example, *Belter* had become very heavily involved with a large domestic customer. It then attempted to transfer its experience with this customer to others in different market segments overseas. So many aspects and operations within this relationship had become institutionalized, or taken for granted that the supplier had difficulty in modifying its philosophy on pricing and its willingness and ability to vary deliveries. The effect of institutionalization on the thinking and practices of a company is also apparent in the *Sprinter* case where the company had become so `locked' in dealings with a single supplier that it never looked beyond this relationship and accepted the associated poor supply performance.

Distance

Social distance This is also minimized in the long-term stage. There are three particular features to the close relationship established by this stage:

Firstly, an extensive contact pattern will have developed between the companies. This may involve several functional areas and its aim will be to achieve `An effective matching and adaptation of the systems and procedures of both supplier and customer' – *Autostart* case. This complex pattern is further illustrated in both the *Salka* and *Belter* cases. However, in the long-term stage, the interactions by the different functions may become separated. For example, the technical problem solving between *Belter* and its customers had become quite separate from the commercial transactions which take place. This can lead to problems of co-ordination and control if different departments are not to work in conflict with each other. For example, Antriebswerke AG had 40 of its staff in constant contact with twelve people in a UK supplier. In view of this, the customer appointed a section head to `manage' the relationship. It was his responsibility to ensure that all of the separate interactions with the supplier were mutually compatible and in line with the overall policy of the buying company.

Secondly, strong personal relationships will have developed between individuals in the two companies. The strength of these can be seen by the extent of mutual problem solving and informal adaptations which occur. However, it may be difficult for an individual to separate these personal relationships from the business relation. Concern with this problem was expressed in the *Teximac* case. Difficulties can arise when company interests are subordinated to those of the

personal relationships. This has its most extreme form in the phenomenon of `side-changing' where individuals act in the interests of the other company and against their own, on the strength of their personal allegiances.

Thirdly, in the long-term stage, companies may become personified in an individual representative. Indeed, it may be the seller's policy to closely identify a relationship with the person of their local representative. This may be of value in establishing a presence in an overseas market. However, it inevitably involves problems if this individual has to be replaced or acts in his own interests rather than those of the company. For example, a UK exporter of machinery had to renegotiate spares prices charged to its main French customer. These had previously been fixed by the supplier's local representative at a very low level. This had been done because the representative was greatly concerned about the effects on his own position of losing this business.

Technological distance Successive contracts and agreements between the companies lead to extensive formal adaptations. These closely integrate many aspects of the operations of the two companies. This close integration is motivated by cost reduction for both companies as well as increased control over either their supply or buyer markets. Guillet de Monthoux has emphasized the barriers to the entry of other companies to which this close integration leads (Guillet de Monthoux, 1975).

Commitment

By the long-term stage, both seller and buyer companies' commitment to the relationship will have been demonstrated by the extensive formal and informal adaptations which have occurred. Nevertheless, the seller company faces two difficulties over commitment at this stage.

Firstly, it is likely to be difficult for a company to balance the need to demonstrate commitment to a client against the danger of becoming overly dependent on that client. *Teximac* shows concern about technological dependence while *Svefo* and *Sprinter* indicated the perceived dependence that may arise when a supplier is physically close to the customer. We should also mention the problem for a buyer caused by a supplier attempting to exploit an exclusive technical position which we found elsewhere in the study. *Maschinentechnik und Motoren* shows the use of `reserve suppliers' to minimize this problem whilst more generally the *Belter* case illustrates the company's attempts to demonstrate commitment, avoid over dependence and yet make the customer value Belter's efforts. `We want them to think they are still important to us. At the same time we also want them to believe that they must work for our attention in competition with other customers'.

Secondly, a customer's perception of a supplier's commitment to a relationship may differ from the actual level. This is because the required investment of resources has largely been incurred before the long term stage is reached. It is also possible that the level of business between the companies has stabilized. Thus, paradoxically, when a supplier is at its most committed to a long-term and

important client, he may *appear* less committed than during the development stage.

We have now come `full circle' in the description of relationship development. We have reached that stable situation before evaluation of potential new suppliers which was our starting point. In this, a company may continue with existing sources of supply or customers with little knowledge or evaluation of the available supply or customer markets. However, before concluding, it is worthwhile mentioning a final stage which buyer—seller relationships may enter.

Stage 5 The Final Stage

This stage is reached in stable markets over long periods of time. It is marked by an extension of the institutionalization process to a point where the conduct of business is based on industry codes of practice. These may have relatively little to do with commercial considerations, but correspond more to a `right way to do business', e.g. the avoidance of price cutting and restrictions on changes in the respective roles of buyer and seller. It is often the case that attempts to break out of institutionalized patterns of trading in the final stage will be met by sanctions from other trading partners or the company's fellow buyers or sellers.'

MANAGERIAL IMPLICATIONS

We have described how the development of buyer—seller relationships can be seen as a process in terms of:

- The increasing experience of the two companies
- The reduction in their uncertainty and the distance between them
- The growth of both actual and perceived commitment
- Their formal and informal adaptations to each other and the investments and savings involved.

We can now turn to some of the management implications of this process. The most obvious implication is that a company cannot treat its buying or supplying market in some overall way. Not only must it segment that market according to the different requirements of companies. It must also see its potential market as a network of relationships. Each of these must be assessed according to the opportunity they represent and how the relationship should be developed. The company's task then becomes the establishment, development, and maintenance of these relationships. This means that the marketing company cannot rely on manipulation of a generalized marketing mix. Further, this management of relationships must take place with regard to the company's skills and the costs involved, as well as the allocation of its resources between different relationships according to the likely return. This has been referred to elsewhere in this study as `portfolio management'.[8]

Establishing Relationships

The existing relationships between buying and selling companies in an industrial market are a powerful barrier to the entry of another company. The barrier consists of the inertia in existing relationships, the uncertainties for the customer in any change of supplier (or for the seller in reducing dependence on a major client), the distance which exists between buyer and a potential seller, and the lack of awareness or information about possible alternative partners. These factors are particularly significant in the case of overseas purchases, where buyers may form stereotypes of national characteristics.

Operational and Strategic Management

This process of planning relationships requires the separation of what we might call `strategic management' from `operational management'. It is difficult for those people involved in detailed interaction with a partner to see this relationship in the context of overall strategy or to see the effects of institutionalization on a relationship. It is the strategic management function which overviews the organization of individual relationships and the interplay between them. This requires the selling company to invest in the development of managerial resources at the marketing level and not just at the sales level and for the buying company to be organized for both strategic as well as the operational buying level.

Our research indicates that industrial companies are more likely to invest marketing resources at the operational than at the strategic level, perhaps because of their more immediately apparent results. This means that many companies are better staffed in the sales areas than under such designations as market planning or market development managers. Similarly, buying departments are likely to be largely staffed with those responsible for day-to-day buying operations with fewer individuals designated for solely purchasing planning or strategy activities. Thus, operational staff are often pulled between the separate tasks of their day to day responsibilities and longer term strategic planning. Under these circumstances it is not surprising that strategic planning is inadequately covered in the company.

Relationship Management

Successful management of relationships requires the co-ordination of all aspects of commercial and technical interactions within each relationship. This may best be carried out by an individual *Relationship Manager* who has overall responsibility for the dealings with a particular client or supplier. This concept is often employed in purchasing whilst in sales departments `account executives' are often solely responsible for such relationships. However, in both cases, these individuals must be of sufficient status to exercise an integrative and control role over other financial, technical, and commercial personnel and this is less often the case. An example of effective relationship management was seen in the

Maschinentechnik und Motoren case. Similarly, a sales subsidiary manager in export operations often exercises the full `relationship manager' function, in taking responsibility for co-ordinating all customer contacts, whether by headquarters or local personnel. The relationship manager also has a vital function in the case of irregularly purchased products, e.g. capital equipment. In this case, there is a clear need to *maintain* the relationship between purchase opportunities, either using sales staff or by his own contact.

Commitment

We have seen the importance of perceived commitment in the development of a relationship. A buyer or seller can demonstrate his commitment by investment of resources in a buying or selling market. We emphasize the importance of these as *a basis* for dealing rather than something which follows after business has been obtained. Commitment is also indicated by the buyer or seller company's investment of personnel resources to a partner in the early stages of a relationship. It is important that both companies examine the extent to which they will appear committed to their partner and employ the appropriate commitment indicators, although any indication of commitment must relate to the company's planned *actual* commitment to that relationship.

Adaptations

We suggest that informal adaptations over and beyond the contractual adaptations are a major indication of commitment and are therefore important to a company seeking to develop a relationship. Formal adaptations may be conditioned by technology, market, or industry norms. However, the extent of a company's adaptations should be included in its plan for a relationship in order to avoid overcommitment or over-dependence on a company.

Stages

We have presented a tentative model of the development of relationships as a series of stages. It is the function of relationship management to see each relationship in the context of these stages and its requirements at different times. Perhaps the best analogy with this is the difference in marketing activities which are appropriate at the various stages in a product life cycle. Thus, the early stage of a relationship requires speedy evaluation of the partners requirements and performance; the development stage requires the demonstration of commitment by resource allocation and adaptation. Perhaps even more vitally, the long-term stage requires constant re-examination of the routines and the standard operating procedures which have been established. Any institutionalization of patterns of interaction may mean that a relationship is being operated in an inappropriate manner, either because of a market or technology change, or because of the changed requirements of either company. Further, this examination will bring to

light ways in which institutionalization of a major relationship can affect the company's organization and its other relationships.

Perhaps the most important lesson about the development of long-term relationships is this danger of institutionalization or habit. The development of `normal' or `the right way' of doing things may make the organization unresponsive to market or product changes in existing dealings. Also, an organization which unquestioningly accepts a pattern of operations dictated under one set of circumstances will have considerable difficulty in adjusting to different requirements in moving to new geographical markets.

FINAL REMARKS

In conclusion, it is important to emphasize that companies should examine their existing relationships whether home or overseas to see which of the stages, described here, they fall into. This examination should be a preliminary to an assessment of each relationship, as follows:

> What is the likely potential of this relationship?
> What resources are required to fulfil this potential?
> Where do the threats to its development come from?
> Where does this relationship fit within the context of the company's
> overall operations and resource allocation in that buying or selling market?
> Are the current efforts devoted to the relationship appropriate to this overall strategy?
> Are we overcommitted to this company, as supplier or customer? Finally, are our ways of dealing with this company appropriate both
> to its needs and our strategy or are they dealings based on habit or history?

NOTES

1. Exceptions include Guillet de Monthoux (1975), Blois (1972), Hakansson and Wootz (1979).
2. For a discussion of the methodological implications of analysis of episodes and relationships see Ford (1980).
3. See, for example, Cunningham and White (1973).
4. For use of a similar concept of distance in international business, see Johanson and Wiedersheim-Paul (1975). For an attempt to analyse the effect of distance on purchase behaviour see Hakansson and Wootz (1975a).
5. Suppliers' informal adaptations are often referred to in the purchasing literature as `Supplier Value Added'.
6. This does not mean that a single supplier has been responsible for all of a customer's requirements of a continuously purchased product or every purchase of a major item.
7. For further discussion of institutionalized practices in long-established markets, see

relationships with customers and suppliers in the themes `An Interaction Approach to Marketing Strategy' and `An Interaction Approach to Purchasing Strategy' within this book.

INTER-ORGANIZATIONAL PERSONAL CONTACT PATTERNS

Malcolm T. Cunningham and *Peter W. Turnbull*

The interaction between buying and selling companies takes place both at corporate and individual levels. At the corporate level, commercial and legal con-tracts are struck to buy and sell products and services on certain terms. At the individual level, personal contacts are made, bargaining and information exchange is carried out and individual relationships are established. This interaction occurs as long as one or both parties involved perceives benefit from it. Benefits accrue where business or personal objectives are achieved by the company and individuals concerned. Interaction implies that the actions of buying and selling companies affect each other and the actions of one party produces changes in the actions or behaviour of the other party. Contracts, orders and agreements require offers, counter offers and bargaining to take place between representatives and specialists from various functional departments in customer and supplier companies. These representatives bring to the negotiations specialist knowledge and interest in specific parts of the total transaction: in this way the various elements of the marketing and purchasing mix (e.g. product, price, service, delivery, quality, etc.) are the subject of communication and bargaining. Thus there emerges a network of inter-organizational contacts and interpersonal information exchanges which embraces many functions and heirarchical levels in the participating customer and supplier companies. Five specific aspects of these contact patterns are now discussed; their importance, their relation to other interaction variables, the roles which they perform, their intensity, and, finally, the styles which characterize them.

THE IMPORTANCE OF PERSONAL CONTACTS

Industrial markets are characterized by the high expenditure on personal selling and service as compared with impersonal advertising communications. Several studies have shown that both buyers and sellers prefer personal contacts to written communications, that face to face meetings are desirable and that negotiations between parties are best conducted on a person-to-person basis. The importance of inter-personnel communications has long been recognized and empirical research studies provide evidence of their perceived importance as sources of information to buyers.` Buyers are by no means passive and personal contacts can be initiated by either the buying or selling company.

Very little research has been reported on the patterns of inter-personnel, inter-

organizational communications in which salesmen and other supplier company personnel exchange information with their counterparts in the customer organization during the buying and selling process. These individuals, such as design engineers, quality control, and production staff, contribute to the interaction and negotiation process on specialized topics within the total transactions between suppliers and customers.

Findings from studies in industrial markets give some comparative data on the accredited value of such contacts and communication channels in lowering buyers' perceived risk, improving the credibility of the supplier and providing a convenient and simple means of gaining knowledge about the supply market.' Buyers ranked `Technical advice' and `Ease of contact with supplier's personnel' as vital aspects of the service provided by suppliers to complement their product offering. In searching for and choosing suppliers, `a visit to the supplier company' was the single most important factor which convinced buyers of the competence of a supplier to meet the buyers' needs. Personal contacts between buyers and the technical and general management personnel were rated as highly as sales representatives as necessary channels of communication.

THE RELATIONSHIP BETWEEN PERSONAL CONTACT PATTERNS AND OTHER INTERACTION VARIABLES

There are several groups of variables, identified in the theoretical model of interaction, which affect or are affected by, personal contacts. Such contacts serve as the medium through which interaction between buying and selling firms occurs. In most cases, contacts and information exchange precedes the exchange of money and products, and these contacts between individuals in two organizations are not independent of other variables in the interaction model. For example, the characteristics of one party to the interaction (e.g. the size of the supplier company) will most likely affect the resources which it can afford to allocate to the selling and customer service functions and, thus, the amount of personal contacts with customers is affected. Again, the type and level of technology of the customer's organization and the complexity of the product being purchased, have profound effects on the amount of information exchange which is required and the length of time over which this occurs. For example, the time taken to evaluate and test a supplier's product may predetermine the amount, type, and level of personal contacts required to buy and sell such a product.

Inter-personal contacts relate closely to the concept of risk discussed in the theory. They serve as an important means of information gathering (inputs) and marketing communications (outputs) between organizations. These contacts enable information which is exchanged to reduce certain types of risk which are perceived by one or other of the parties. As an example, environmental uncertainty may arise because a buyer is unfamiliar with the economic climate or supply situation prevailing in the industrial sector or country of a supplier. Contact patterns can help provide the framework in which questions about that

environment can be posed directly or inferred from other information. Any uncertainty about a customer's or supplier's organizational structure, viability, methods of working, or technological expertise can also be resolved by direct personal contacts between the two companies.

The establishment and maintenance of inter-company relationships is through the contacts of key individuals. The behaviour of the individuals acting either in their own right, or as representatives of their companies, creates the 'atmosphere' in which inter-company relationships occur. An atmosphere of trust or deceit may be created, an atmosphere of brutal exercise of power or restraint may be built up and developed by the actions of individuals. This may occur in individual episodes or events, or be part of the general background to the relationship over a long time.

An example of the way in which attitudes and behaviour of individuals towards their counterparts in a relationship has a profound effect upon the atmosphere of an interaction is found in the *Britapaints and Colorex* Case Study. The former paint company buying raw materials, attempts to create an atmosphere of trust, collaboration, and technical dependence. The latter paint company is less sensitive to the atmosphere of calculated self-interest which their behaviour generates. Thus, two quite different atmospheres surround the interaction between these paint companies and their suppliers.

Although personal contacts help towards the establishment of inter-company relationships, it should not be thought that their function is purely one of preserving a static relationship. Rather, they provide both companies with the dynamic necessary to respond to new opportunities and threats. The contacts serve as antennae of the organizations which provide feed-back for action to change the relationship. These dynamic and complex contact patterns can be found in many industries, and are not confined to a two party supplier–customer relationship. Some markets are found to have complex networks of multiple relationships involving several parties simultaneously. Two interesting illustrations can be found in the capital goods (or high complexity, low quantity component) markets as apply to the British *Unifix* and the Swedish *Mekaniks and Motors* cases. These situations require suppliers to establish relationships which involve not only immediate shipyard customers, but also the customers' customers, i.e. the end-users – shipowners. The supplier regards the less frequent contacts with the shipowners as the *more* crucial, because of their influential nature on his direct customer, the shipyard. There is a dynamic nature about the contact patterns in these product industries, since their intensity and range varies at different stages of the complex process of negotiation and contact handling. They are also dynamic in that all potential customers (owners and yards) may have to be contacted for any single order and relationships must be maintained during times of inactivity of business. Such contacts are then activated when business is more likely to occur.

Apart from the more obvious forms of information exchange already alluded to, what then are the *roles* of such personal interactions, which are often extensive, complex and long lasting over time? What *intensity* or scale of activity in

numbers, levels and diversity of functions is involved? What *style* and form do such contacts take in different buying and selling situations? These issues are now examined in turn.

THE ROLE OF PERSONAL CONTACT

Information Exchange Role

The `soft' type of information readily lends itself to transfer between organizations by personal contacts, and such information may be used to complement `hard' data on price, specifications and terms of contract.

The risk which is perceived by buyers in placing an order for a product or service is due to the uncertainty and possible adverse consequences which surround that decision. The greater the complexity of the product required, the greater the uncertainty, both for the buyer and the seller. This is what Hakansson and Wootz (1975) refer to as `Need Uncertainty'. This perceived risk may be reduced by the exchange of information on technical, commercial, and organizational matters. The information exchange flow is enhanced in the face-to-face situation and the parties to the exchange are able to seek out and evaluate information about the competence and credibility of each other. Mutual trust, respect, and personal friendships between participants allows confidential information to be exchanged, which provides market and technological feedback to the customer and supplier alike.

Assessment Role

In the same way as the process of specifying and selecting the required product may be risky, the choice of actual supplier is often equally surrounded by risk. Personal contacts provide one means whereby this dimension of risk can be reduced. The assessment of a supplier's competence, is a process frequently involving personal judgements as well as objective facts; these judgements are improved through interacting with the other party in both formal and informal situations. For the supplier, it is often equally important to assess the suitability of a potential customer. For example, the supplier may wish to be sure of the long term viability of the customer, whether it may grow, etc. The assessment role of personal contacts may therefore be equally important to a buyer as to a supplier.

Negotiation and Adaptation Role

Almost all industrial purchasing and marketing involves negotiations of some form. The level and frequency of negotiation may be very limited for simple, standard products. On the other hand, in the case of high value, highly complex products, negotiation may take place regarding a wide range of topics (such as product specification, price, order quantities, delivery scheduling, transportation

arrangements, terms of payment, etc.), at a variety of levels in each organization and over considerable periods of time. The negotiation process does not finish with the placing of an order, because further negotiations take place, regarding repeat orders, price rises, after-sales service, etc.

Personal contacts in buying and selling are the normal means of persuasion and negotiation both at the time of, and subsequent to the original order. Adaptations to the product, manufacturing processes and delivery systems are discussed and agreements reached through personal discussions between interested specialist groups from each company.

Crisis Insurance Role

The information, assessment, and negotiation roles discussed above can be seen to be instrumental in nature. They have a clear and understandable `raison d'etre'. However, an examination of interpersonal contact patterns reveals personal contacts taking place between individuals in organizations for no immediately obvious reason. Such contacts are often deliberately established by companies as a form of crisis insurance. When a major problem or crisis occurs, which cannot be resolved through existing channels of influence, these contacts are utilized. Thus, for example, senior purchasing executives will arrange to meet regularly, albeit infrequently, the main board directors of supplier companies and try to establish a personal relationship with them. In times of extreme difficulty they will utilize these contacts as a means of obtaining more rapid or dramatic action. In a similar manner, the supplier attempts to establish some links at a very high level, in the customer firm, which can be called on in the event of a potential change of supplier by the buyer. Not all insurance contacts are at a high level. For example, expediting clerks working in a customer firm will sometimes establish a contact with, say, the transport foreman in the supplier, in the hope of preferential treatment when delivery problems occur.

Social Role

Although we have established that the majority of roles of personal interaction serve clear organizational and personal objectives, some relationships exist purely for private social reasons and are not necessary for the business objectives of either company. People at work behave, at least in part, as they do in their private social lives. They meet other people, both within their organization, and in organizations with which they deal. When they meet people whom they like, a social relationship may develop and regular contact maintained for no other reason than it makes work more congenial.

It is difficult to discover, through research, how extensive such relationships are; however, it is unlikely that many contacts are established purely for social liking reasons. What is more common is that personal liking develops as a consequence of instrumental interaction and the two people then tend to interact more frequently for the social reasons. Furthermore, when one of the people changes

functions, so the `legitimate' reason for contact is removed, yet contact is still maintained.

Ego-enhancement Role

There is a second form of social contact, which can be termed the ego-enhancement role. This occurs where an individual deliberately establishes a contact with senior people in supplier or buyer organizations because he believes this will enhance his status in his own organization. Thus a buyer may insist on meeting regularly with the sales director, or managing director, of a supplier, even though these contacts may appear to serve no functionally useful purpose. Such contacts must necessarily be more tenuous than those serving the other roles defined above.

In general, companies are not likely to encourage interaction which is only socially based. There is an expectation that other elements of interaction (such as information exchange, product sales or purchases and adaptations) would also result. There is evidence from the cases that buyers are more inclined to maintain `good and distant' relationships than salesmen. Yet some suppliers see dangers attached to their salesmen having too close an involvement with customers. They may lose their objectivity and take actions in the interests of the social relationships, rather than in the wider interests of their company.

The dilemma that faces a company that wishes to monitor and control personal contacts is that social contacts are an inevitable consequence of good functional contacts; if they wish to have close personal relationships between their staff and customer or supplier staff, then they must expect close social contacts to take place. If they prevent or limit social interaction too severely, they may well lose the great benefits which clearly are to be derived from extensive and intensive interaction.

In almost every relationship presented and discussed in the case studies, it is apparent that the personal contacts serve a multiplicity of roles simultaneously: other case studies highlight more specific roles.

The *Unifix company,* for example, illustrates one of the information roles of personal contacts in which the Company relies extensively on the market intelligence capability of its sales agents who, through their contacts with owners and builders, act as listening posts. Their feedback to the supplier activates the marketing and senior management staff, to direct their activities in specific directions, in order to influence and persuade customers of the supplier's capabilities.

The *Sprinter company* used the personal contact skills of its buyers and technical staff in an assessment role when searching for new suppliers. They carried out comprehensive vendor rating assessments of their new suppliers when a breakdown occurred in the relationship with their original UK supplier. This latter supplier may have been guilty in not having an adequate and sensitive enough customer intelligence system to recognize the need for preserving good relationships when putting through a unilateral price increase.

The crisis resolving role of personal contacts emerges clearly in the *Autostart case.* Two crises which arose in relationships with a Swedish customer (firstly due to delivery delays, and secondly due to the need to increase prices and profit margins), appeared to be resolved satisfactorily because personal contacts at sales representative level alerted the supplier to the impending crisis and higher level contacts at export manager and general manager level were able to negotiate a satisfactory outcome.

The *Antriebswerke AG case,* involving a Germany company buying from Britain, provides some evidence of the negotiating role of personal contacts. The Company insisted upon direct personal access to the supplier's technical staff (rather than continuing to deal through an agent) in order to negotiate an increase in the performance characteristics of the machine being supplied. The same company, buying precision parts in the UK, uses its extensive interfunctional personal contacts with suppliers to negotiate and achieve immediate improvements in the quality and technical features of the items being supplied.

THE INTENSITY OF INTER-PERSONAL CONTACTS

The amount of personal interaction between organizational members of buying and selling firms varies considerably in its intensity. At the one extreme there is a single dyadic relationship between one salesman and a buyer. At the other extreme is to be found a vast network of interlocking contacts between groups of specialists from different functional departments at different levels. Such relationships are not only between one firm and another, but between groups and individuals within the same company; all are concerned with an external relationship with a customer or a supplier. A further dimension of complexity is found where direct relationships and contacts between customers and suppliers is augmented by the intervening function of a distributor, subsidiary or agent.

With *Stahlwerke AG,* it is seen that the use by the supplier of different channels of distribution for its products is a major determinant of the scale of personal contacts between the supplier or its subsidiary or its distributor and the customer. The recognition of the need to provide better technical advice to large customers, and the use of subsidiaries only for routine contacts (especially for handling small customers), had caused the supplier to deal directly with selected, important customers. But another factor is of equal importance — that of the branch or sector of industry of the customer. One type of industrial customer who makes tanks for pressure vessels (as illustrated by the French and Italian relationships) are handled by subsidiaries through a narrow range of personal contacts, on each side of the buyer—seller relationship. Another type of application, for shipyard customers in the UK and Sweden, requires regular meetings and extensive direct contacts between wide ranging functions and at varying levels of management. Finally, the car manufacturing customer in the UK is dealt with primarily through a subsidiary, but with periodic support at high level from the management of both supplier and customer companies.

It is conceivable that the intensity of personal contacts between two interacting

companies can be assessed by several complementary measures. For example, the number of people involved, or the diversity of functional activities encompassed may reflect the pervasive and interlocking bonds of personal contacts which bind the two organizations together. The number of these bonds may give an indication of the extent of individual relationships which have to be established or broken when a change in one company's action is contemplated. If it was also possible to measure the strength of such bonds by the frequency with which each personal contact was made, or the attitudinal commitment to that relationship, then this would add a further dimension to the undertaking of the inter-organizational linkage strength.

The intensity of personal contacts between a company and its customers, and the different levels of resources thus allocated varies considerably. In the British *Autostart* company, comparisons are drawn between the intensity of customer contacts for two types of products. The more technically complex product has a higher intensity of contacts associated with it than does the less complex product. This intensity is greater, not only in the pre-order development stage of a contract but also in the maintenance stage of the relationship. With one UK customer, 30 people in the supplier are in regular contact with up to 40 people from counterpart functions in the customer company. Yet, the allocation of different levels of resources for such personal contacts varies widely between customers, even for the same product. In the Autostart case study some analysis of these relationships has been carried out to demonstrate that the intensity of personal contact patterns is not capable of explanation by a single phenomenon or variable. Important determinants are such factors as the age of the relationship (because of the progressive institutionalization of contact patterns), the volume of business transacted (reflecting the importance of the relationship), and the existence of language and cultural barriers to interaction (reflecting the relative incompatibility of organizations and individuals in a relationship).

Not all person-to-person relationships are of equal importance in influencing company actions. The relevance here of the concept of the decision-making unit in buying behaviour and the equally important decision-making unit in selling behaviour is based upon the fact that influence and power is not uniformly distributed amongst participants in decision-making. The actual levels in the hierarchy of an organization at which inter-company personal contacts are made is an important determinant of the intensity and strength of inter-company relationships. This is particularly pertinent where it can be inferred or demonstrated that such high level contacts influence buying and selling behaviour.

The intensity of contact patterns thus defined, gives some indication of the resource commitments required to satisfactorily handle such relationships. Therefore, the investment of such resources is partly determined by external factors, such as the technology, or the industry norms of behaviour, and partly by internal factors, such as the company's desire to commit its resources to various relationships.

In the French *Lyon Acier* case study of an iron and steel company (an example of process manufacturing and raw material purchases) the supplies being bought

are coke, scrap metal, etc., which are low technology commodities. The purchasing activities require very little technical information exchange and adaptation and also a low intensity of personal contact patterns between the customer and its suppliers.

However, for higher technology raw materials, such as the special steels sold by *Britmet,* or the high alloy forgings sold by *Belter,* greater technical interaction between suppliers and customers occurs. In Britmet, 20 senior managers are involved in relationships with one important UK customer, half that number on a regular basis.

In high technology component marketing and buying, such as is illustrated by the Swedish *Svefo* case in the automotive sector, frequent re-ordering and regular exchange of products and money occurs between customers and suppliers. There exists a pattern of interfunctional contacts between companies dealing with routine technical, quality and supply matters. The intensity of contact changes in frequency, level, and functional priority as new situations occur, such as when a new contract is being negotiated, a new design is being introduced by either party, or if a crisis in the current relationship occurs. On the other hand, in capital equipment markets there may be long periods of apparent inactivity in contacts when no orders are imminent and the last order has been completed. If a contract is likely to arise, then those personal contacts which have been serving a market intelligence role might then activate the remaining contacts at different levels and in different functions, in order to attempt to secure those new orders. The *Unifix* and *Mekaniks and Motors* cases both provide illustrations of this in the ship-building industry.

THE STYLES OF INTER-PERSONAL CONTACTS

Of considerable interest to suppliers and buyers alike, when operating in new or culturally different markets, are the differences in style of personal contact patterns which can be found in different industries, markets, or with specific counterpart companies. The traditions within an industry, the protocols of behaviour in certain regions, and the cultural influences within a country may have to be adhered to. On the other hand, customers and suppliers have pre-conceived expectations of personnel from other countries and only a limited degree of conformity on the part of the latter would be expected. The data within the case studies do show interesting features in the different styles of interpersonal contacts, and it is likely that, from a wider data base than these cases, viable generalizations can be made. However, using the case material, the styles of interpersonal contacts between suppliers and customers can be examined in such terms as closeness, formality, institutionalization, etc. As one might expect, there are clear indications from the cases that marketers seek a much closer personal interaction with customers' personnel than the buyers do with suppliers. Marketers, naturally, seek to influence and persuade customers' technical staff in their specification of products to be bought. Buyers on the other hand recognize

the inherent dangers of excessively close social contacts, yet seek out close contacts on more instrumental factors. Furthermore, very close collaboration in a technical, commercial, and social sense means that resources must be committed to the necessary personal contacts. For example in the *Swesteel* case, the relationships of the supplier with its many customers have been classified into groups which reflect different styles and resource implications of `close collaboration', `strictly business orientation', etc., according to the stage of development of the relationship.

The case studies also show interesting variations in style according to the degree of formality of contacts. In some situations contacts are formalized by either the customer or the supplier; in other situations, informality is deliberately encouraged or is allowed to proceed in an unco-ordinated manner. The latter style avoids the necessity of careful planning and administrative control; it allows individual person-to-person relationships to be developed. However, where there is lack of integration of the marketing and the supportive service activities of the supplier, this may result in separate sub-negotiations taking place with unmanaged information exchange with the customer. Similarly, the buyer who allows excessive freedom of access by the supplier's staff into his own organization, may find that his own discretion, authority, and bargaining position in the choice of supplier is undermined.

The case studies show many instances in which the normal form of inter-company, inter-personal contacts are of an informal nature. This is typified by the periodic visits of salesmen from supplier or subsidiary company calling to see buyers, engineers, and production staff in the customer company. These are occasionally augmented by slightly more formalized, higher level meetings of senior management from the two companies. As the relationship develops, more business is transacted, or as complex technical problems or delivery crises emerge, then greater direct interaction between specialists in each firm occurs. Thereafter, companies follow one of two routes. Either these contacts become formalized into large meetings of both companies' staff with smaller meetings of specialist sub-groups; or else the contacts proceed in an informal and loosely structured manner, except to resolve major crises and enter into new negotiations. Formalization of customer contacts is apparent in the *Britmet Company* case study in dealing with its large UK customer. Formal monthly meetings to co-ordinate policy, product development and pricing are supplemented by formal weekly meetings between supplier's sales manager and the customer's commercial manager to co-ordinate production plans. Here, the contact pattern has taken on a style of *institutionalization.* Indeed, even the social interaction has been, to some extent, formalized and institutionalized, with inter-company organized sports and social events. However, with its German customers, an informal style has emerged in which its German sales office and agents make regular informal contacts with the customer. These are then supported by infrequent, more formal top level meetings between senior marketing staff of Britmet and various functional specialists from the customer.

In the *Autostart* company case study, a self perpetuating and institutionalized structure of formal collaborative meetings are the style of contacts between the company and two of its largest UK customers. In addition to marketing and buying face-to-face meetings to discuss price increases and new business, there are quality control meetings, production meetings, and engineering meetings each involving a separate group of specialists. Minutes and agendas are prepared. The major contacts with Autostart's Italian customers are highly formalized when sales, engineering, and production staff from the supplier visit the customer. A large number (10 to 15 people) of technical and commercial staff of the customers meet their supplier counterparts round one table. Difficulties with the language as well as the autocratic and formal style of the customer firm dictate this pattern. However, such formal meetings are supplemented by regular, low-level contacts between the supplier's sales staff in Italy with a restricted number of buying and technical supplier personnel.

The *Salka Company* in Sweden decided to take the initiative and instituted a formal inter-departmental group of specialists from its own company, in order to co-ordinate all interested views about the purchase of a critical item from a UK supplier. They subsequently encouraged the UK supplier to form a corresponding group. This arrangement has now been formalized into an inter-company collaborative group at two levels – general management and specialist staffs. Yet Salka has not created comparable formal arrangements for collaboration with an equally important home supplier, nor for the purchase of other supplies from German and French manufacturers.

SUMMARY

Almost every case study presented in this volume provides evidence of personal contact patterns between suppliers and customers, but reference has only been made to a few of these in this theme. These personal contacts are at the heart of interaction between organizations and, in industrial markets, in particular, serve as the medium through which communications in buying and selling take place. Apart from their function for two-way information exchange, the personal contacts facilitate other elements of interaction, such as the adaptations by suppliers and customers to the design or application of the product or the modification to the production, distribution, and administrative systems of either party to the transaction. The precise terms of the contract to buy and supply the product are often open to negotiation and this is accomplished through inter-organizational contacts between representatives of each firm, usually salesmen and buyers.

Previous studies have identified the relative importance of face-to-face personal contacts in industrial markets, when compared with impersonal sources of information required by buyers and sellers alike. Attention is drawn in the research reported here to the multiple roles which personal contacts play in purchasing and marketing. Such roles as information exchange, assessment, negotiation, crisis insurance, social, and ego enhancement have been discussed. It is important to recognize that many of these roles are performed simultaneously or can be found in a single relationship over time.

The narrow band of personal contacts between salesmen and buyers are often explicitly organized and controlled, as far as their frequency and objectives are concerned. However, this research has provided considerable evidence of the vast networks of inter and intra organizational personal contacts which involve design, production, quality, service, and distribution staff on both customer and supplier companies. It is by no means obvious that these contacts are subject to explicit planning and control by the companies. They represent a high investment of specialist human resources. Furthermore, if they are not co-ordinated and integrated effectively, there is a danger of these resources being inadequately or inefficiently utilized. The roles of these contacts may be in conflict and either the supplier or customer is getting less than full value from such resources if the marketing or purchasing functions are not in effective control of the relationships with their counterpart company.

Inter-organizational personal contacts vary in their intensity from simple, one-to-one individual contacts to a complex network of inter-functional relationships. The intensity varies over time according to the stage through which a relationship passes or due to regular, foreseeable circumstances, such as a change in the volume or design of an item. Unforeseen discontinuities and crises occur, which also affect the intensity of contacts between individual functions, or between the two organizations as a whole. The intensity of contacts has been examined here according to such criteria as the number of individuals involved, the frequency of contacts, and the diversity of functions and hierarchical levels concerned. The complexity of the product technology and the type of application to which the product is put (as exemplified by the cell in the matrix of supplier and customer technology) has been shown to have an important bearing on the pattern of personal contacts.

Personal contacts are seen to vary in their style, as indicated by the degree of `closeness' or `remoteness', and by the extent of formality or informality encouraged by the parties involved. Some evidence has been provided of the progressive institutionalization of personal contact patterns over time, whereby there is an expectation built up of the frequency and style of contacts. Inter-company meetings become incorporated into the practices and procedures of the separate companies and it becomes increasingly difficult for one party to with-draw from these arrangements. The personal contacts which are established for one purpose begin to serve other purposes; the bonds which interlock the two organizations commercially and technically also serve as constraints on freedom of action. The social role of the contacts are seen by buyers in particular as prejudicing their instrumental role.

The data base for such comments comes from the case studies in several countries and in a variety of industries. This now requires a more extensive examination using the larger data base of the many relationships studied in this research project.

NOTES

1. See Brand (1972), Buckner (1966), Cunningham and White (1974), Levitt (1967),

McGraw-Hill (1968), Webster (1971/1972), and Webster (1968).

2. See Cunningham and Roberts (1974), Luffman (1974), and Turnbull (1974).

SECTION 5.3 INTERACTING PARTIES

Earlier, we distinguished between two aspects of interaction when we discussed the parties in relation to each other. Those were the degree to which the parties were matched and the degree to which the parties were known to each other, as illustrated in Figure 5.2. In this section themes will be presented that further develop the first of these two aspects. The technologies of the parties have been considered earlier in this book; the influences of the production technology on purchasing has, for example, been discussed in the introductions to the three purchasing sections of company cases. Our interest in technology is natural, as industrial markets consist of different technical units that need to be linked to other technical units. The technology of the purchasing company and its influence on behaviour are the focus of the first theme in this section. With a starting point in Woodward (1965) the internal structure of companies with different types of technologies are discussed. Purchasing activities are thus considered within a wider context. The organizational structures for purchasing are then systematically related to the types of relationships that have to be developed with strategic suppliers. From a marketing perspective, the theme can be said to describe the kinds of counterparts certain purchasing firms want.

The next two themes are closely inter-related, the first one deals with marketing strategies and the second one with purchasing strategies. One conclusion of the case study sections was that the willingness to enter into certain relationships differed between companies and depended on company strategy. In both themes the concept of a portfolio of customer or supplier relationships is introduced. This concept suggests that marketing strategy can be described in terms of a desired group of customers and purchasing strategy in terms of a desired group of suppliers. Both customers and suppliers can be characterized in terms of the type of relationships they demand and the resources and organizational implications. In the theme, our interaction approach is also combined with other strategic models or issues.

PRODUCTION TECHNOLOGY AND USER—SUPPLIER INTERACTION

Jan Johanson

INTRODUCTION

Our sampling or choice matrix reflects our view that there is an important

hand and the interaction process between the supplying and customer firms on the other. In Chapter 2 we said that the aims of the interaction process can be interpreted as tying together the production systems of the two firms. The characteristics of the two technological systems in this way give some of the basic conditions for the interaction. We did, however, not develop or specify this relationship. The purpose of this chapter is to discuss some aspects of it in some detail.

The focus is on the production technology of the using firm and the basic assumption is that differences in these production systems generate different needs with regard to supplier handling and that those different needs give rise to different types of interaction processes with suppliers as illustrated in Fig. 1 (Hallén, 1979).

Fig. 1 Structure of the assumed relationship between production technology and user–supplier interaction

Of course, this assumption does not mean that other factors do not influence the interaction processes. As discussed in Chapter 2 such factors as the type of product, organizational size, experience, market structure, etc., which might be related to production technology in various ways, are also thought to be important conditioning factors. Here, however, attention is on the effects of the technology factor. Neither should the assumptions be interpreted as deterministic relationships. The firms, or rather the individuals in the firms, have some discretion in handling their suppliers. Thus, to some extent, they can use different suppliers for different purposes, as discussed in the introduction to the cases and consequently, develop different relationships to them. In this chapter, however, we concentrate on the conditioning effects of the production technology. The discussion is limited to the supply of inputs.

In the first section of this theme the characteristics of production technologies are discussed. Woodward's research into the organization of industrial firms is the basis for this discussion (Woodward, 1965). Some of the principal needs, with regard to the handling of suppliers in different technologies are identified. In the second section those needs are related to different aspects of interaction processes. Although this discussion is largely hypothetical, it draws on case material presented in Chapter 4.

PRODUCTION TECHNOLOGIES

The sampling or choice matrix used, was based on the well-known typology used by Woodward (1965). Eleven categories were specified, but for most analyses they

were joined into three major groups. These turned out to be the ones commonly used by production engineers: unit and small-batch production, large-batch and mass production, and process production.

A number of other technology classifications have been advanced by other researchers (Thompson, 1967; Perrow, 1967; Pugh *et al.,* 1968), but one main basis of classification, the continuity of the production process, is common to theirs and to Woodward's. The advantage of well-known concepts in discussions with practitioners was, in itself, a sufficient reason to use Woodward's classification in the empirical research and it will also be the basis of the following discussion.

As mentioned, a basic difference between the three technology categories is the continuity of the production process. There is a low continuity in the unit production systems and an almost complete continuity in the typical process production systems. The other side of this continuity is the rigidity, or lack of flexibility, of the system. The unit production system is rather flexible. Changes in the system and of products can be carried through rather easily and the planning horizon usually includes only a few orders. The process production systems, on the other hand, are often extremely rigid - they cannot be used for anything but the products for which they were originally designed and constructed. Large-batch and mass production systems are also rigid, but usually they can be reorganized so that new products can be produced. An important factor behind this difference is the relative importance of capital equipment and labour in the production systems. Process production systems utilize expensive and specialized process equipment and the advantages of large scale are considerable. The capital costs are higher than in the other production systems where the share of labour cost is higher (Woodward, 1965).

Woodward also investigated the relationships between the three functions development, production, and marketing in the three production technologies and noted that these differ with regard to the relative importance of the three functions and with regard to the order between them in a manufacturing cycle. In general, she found that each technology had its typical organization. Unfortunately, for our purpose, the purchasing function was not distinguished and discussed on the same level, but her results indicate some plausible hypotheses about purchasing.

In the unit and small-batch production system the sequence of the manufacturing cycle was marketing -> development -* production. The most important function was development. The manufacturing cycle was initiated by a sales order, but the ability to get orders was mainly dependent on the ability to design and develop products according to the needs of specific customers. A consequence of the importance of the design and development function is that these organizations were characterized by a low degree of standardization and formalization. There was a close and extensive interaction between the three functions. Contacts were informal and frequent.

The sequence of the large-batch and mass production systems' manufacturing cycle was development -> production -> marketing and the dominant function was

production. The emphasis of the organization was very much on attaining production efficiency with consequent routinization and formalization. The three functions were clearly separated and contacts included only formal information exchange. Decisions about product changes were taken on a higher level in the managerial hierarchy than in the unit and small production technology, where such changes were carried through more gradually in connection with design and production of new units or batches.

The manufacturing cycle of the process production technology, finally, had the sequence, development -> marketing -> production. The importance of obtaining large sales volume so that the production capacity can be utilized made marketing the critical function. There was a wide gulf between the three functions and contacts between them included only formal information exchange.

We may add some other comments relating to the production technologies. Unit, batch, and mass production, in contrast to process production, are of the assembly type. The products are often complex, consisting of a number of components or sub-systems, some of which may require very specialized competence and equipment that may be difficult for one firm to develop and maintain. Process production, on the other hand, usually requires few inputs. In fact, the production process often consists only of converting one single input.

Finally, in the unit production systems there are often significant third parties - the customer's customer - who have specific demands about specific components and suppliers.

Let us conclude this section by noting that the three technologies should not be considered as lying on a unidimensional scale. Instead, they should be regarded as three qualitatively different types which differ in a number of respects. In the following discussion of supplier relationships we shall focus attention on the `typical', although we are well aware that many real production systems are combinations or intermediary forms of the technologies.

CHARACTER OF USER-SUPPLIER INTERACTION

Unit and Small-batch Production

From the description of the production technologies above, we expect that the critical role of the design and development function and the factors behind this role in the unit and small-batch producing firms, will affect the relationships with their suppliers in the same way as their internal organizational structures. We expect that the inter-organizational, like the intra-organizational, relationships shall be characterized by extensive, intimate, and informal contact patterns, Personnel from several functions will be involved and have direct personal contacts with their counterparts. There will be strong elements of social exchange in those contacts.

Primarily, we expect the design and development functions to have close and intimate relationships with their colleagues in the supplier firms. For instance,

since the design of new units or batches is more or less a continuous activity, there have to be intensive contacts to develop suitable technical solutions and ensure compatibility between components. This tendency will be more pronounced the more complex the components of the product and the stronger the technical interdependence between them are. In the extreme cases, the design and development engineers of the using firm may adopt the role of co-ordinator of design and development work carried out in the supplying firms.

Other functions can also be expected to have direct contacts with the suppliers. In connection with sales negotiations, where the lead time is often important, it is essential to have an accurate picture of the lead times of critical suppliers. Thus, we may even expect the sales departments of unit production firms to have some direct contacts with suppliers.

During the production stage, precision of deliveries is important in so far as supplied products are non-standardized or otherwise difficult to carry in stock and there is sequential dependence in the production process. This requires direct and frequent production planning contacts. During the production stage engineering contacts may also be necessary, since production cannot be routinized in the same way as in mass production technology.

When the demands on the quality or performance of the end product are very high, as is often the case in the unit production technology, there is a need for a well developed quality control system, which in some cases will include the production organization of the suppliers. Sometimes the user even has its own quality control personnel permanently stationed in the supplying firm's plant.

It is obvious from the discussion above that we can expect relatively frequent and significant adaptations to be made by both parties in the relationships. We expect mutual product adaptations and adaptations of routines and organizations.

On the whole, we expect that long-term and close relationships between unit-production firms and their suppliers will usually evolve, meaning that they develop together technically and commercially as well as socially. In those cases we expect that the atmosphere will be characterized by cooperation between the firms rather than conflict. We also expect direct, multifunctional, inter-organizational contacts with strong elements of social exchange. The purchasing department will sometimes adopt the role of co-ordinator of the relationship, but when the purchasing function is limited to commercial matters it will have a more subordinate role.

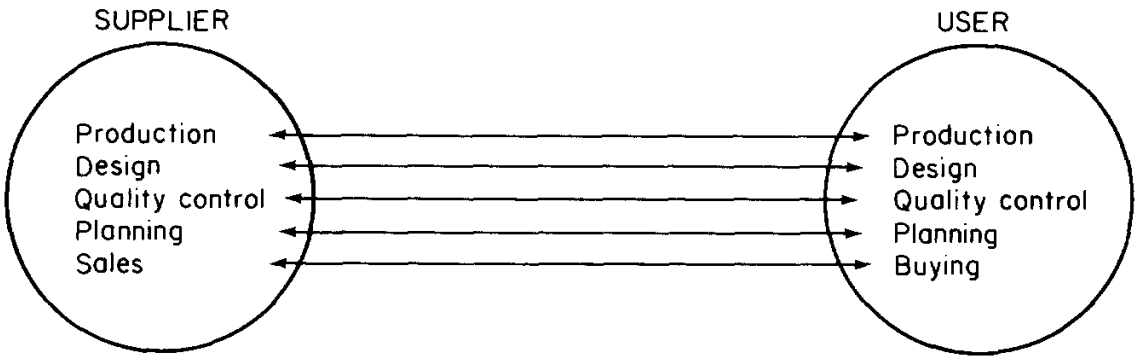


Fig. 2 Characteristic inter-organizational contact structure between unit production firm and supplier

However, there are some factors which, at least partially, work in the opposite direction. First, the lack of regularity of the unit-production systems, sometimes with long intervals between purchases, may be an obstacle to the development of close relationships. Second, the planning situation where lead time is a very strong factor, means that it is important to have access to several supply sources. These two factors probably affect material and standard component supplier relationships in particular. A third factor is the existence of end-users who require that specific components or suppliers are used. Such third party demands may, for example, be caused by service requirement or by protectionism. Consequently, in all those cases we expect the producer to select a supplier for each new delivery and the relationships to be less intimate.

Large-batch and Mass Production

The relationships between the large-batch and mass production firms and their suppliers are similarly conditioned by the importance of maintaining an efficient production system. The relationships, like the organization of the firm, are more characterized by formalization, specialization, and routinization, characteristics which are supposed to ensure stability and predictability. The contacts with the suppliers will mainly be managed by specialists in the purchasing departments. The function of those specialists will principally be to control the external parts of the production system so that an economic and stable flow of a great number of materials and components of consistent quality is secured (Hallén, 1979).

There is often a great number of suppliers and transactions which makes transaction economy important and necessitates routinized handling of supplier contacts. In those cases there are usually strong purchasing departments, who handle most supplier contacts. The purchasers will often have quite extensive contacts in the supplier firms. Besides contacts with sales personnel they will have contacts with production engineers and planners as well as with design engineers.

When a producer only has a few suppliers we can expect other contact patterns and less routinized handling of supplier relationships. The same can also be expected in the case of very critical or complex inputs. The main topics of information exchange will be precision of deliveries and the consistency of quality. The

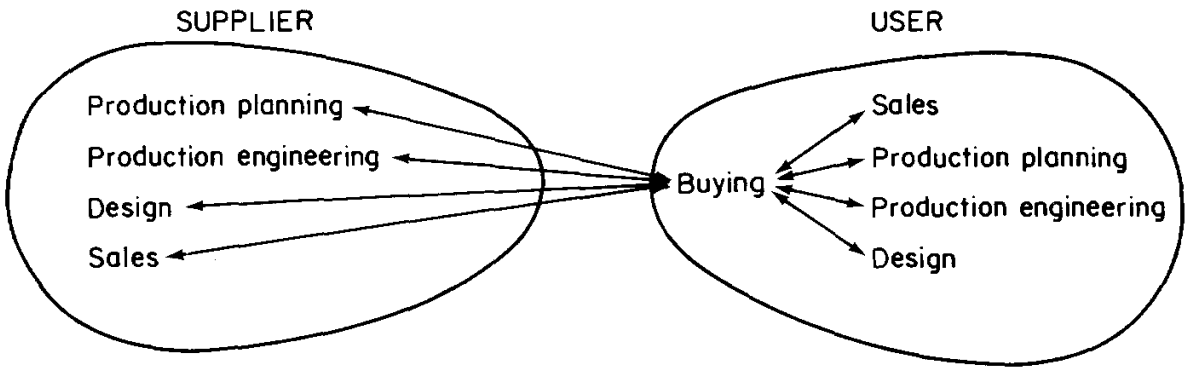


Fig. 3 Characteristic inter-organizational contact structure between mass production firm and supplier

stronger the sequential dependence of the production process and the higher the number of components included, the more important those subjects will be.

Generally, the relationships will be more formal and personal relationships less close than those of the unit production firms. The atmosphere will be characterized by the often uneven yet usually stable, power–dependence relationship between the firms. Social exchange is mainly brought about indirectly by the actual product flow. Only by demonstrating willingness and ability in practice to deliver with precision and consistent quality can the supplier gain the trust of the user. Consequently, the share of a well-performing supplier will only increase gradually. But when a relationship has been established it will generally only be broken if the supplier does not fulfil his commitments.

The design and development function is clearly separated from the production system in the mass production firm, as are relationships with the supplier's design function. Design and development contacts regarding critical inputs are handled directly by this function. Less critical contacts are channelled via the purchasing departments.

Product adaptations by either party are infrequent and are made only in connection with model changes, which are carried out at long intervals. In general, there is scepticism towards product modifications and new technical solutions suggested by the suppliers.

Considering other types of adaptations we expect that the users, when the power-dependence relationships allow it, will demand that suppliers adapt their production organization and planning procedures to the needs of the user. The mass production firm itself will not make such adaptations.

Process Production

In the process production technology, the critical problem of the technology is the need to utilize production capacity, which also conditions the relationships with suppliers. The most important function is to secure a stable flow of one or a few strategic materials, which account for a dominant share of the total costs of the products. In many firms and situations this is the only possibility to influence the profitability of the firm. The cost of production, as well as input and output relationships, is determined once and for all when the plant is designed.

Consequently, purchasing of such strategic materials is carried out at a very high level and in many firms such supplier relationships are handled by top management. It may be the purchasing director, the technical director, or the managing director who carries out the negotiations with the strategic suppliers. For the same reason, a number of parallel supplier relationships are often developed and maintained.

Information as well as social exchange is strongly conditioned by the business cycle situation, which creates strong and changing power–dependence imbalances. During periods of surplus demand the supplier is in a strong power position and the buyer's main problem is to secure deliveries. During periods of surplus supply the buyer has a strong position and the main problem is to negotiate competitive prices. Technical matters are usually of minor importance

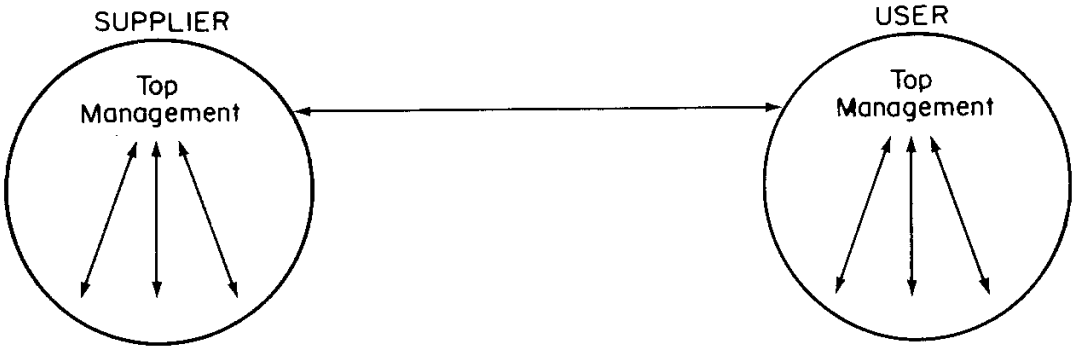


Fig. 4 Characteristic inter-organizational contact structure between process producing firm and strategic supplier

and no flexibility is allowed with regard to the quality of inputs. The technical fit is clearly specified and is closely related to the design and construction of the plant.

Social exchange, that is the build-up of mutual trust, is mainly a dynamic function of the handling of the power-dependence relationships. Buyers who feel ill-treated during periods of surplus demand will act to change suppliers when the power-dependence situation has changed and they are in a stronger position.

Adaptations are of very minor importance except in connection with investments in new plants when the production system has to be adapted to available inputs. In those situations large adaptations may be made in order to secure adequate sources. In many cases, in particular when the inputs are not standardized, this requires negotiations about long-term deliveries and suppliers are influenced to make complementary investments, which in the extreme case, may lead to vertical integration.

In spite of those characteristics, these are the markets that conform best with the market mobility assumptions of traditional economic theory whether there are many competitors or more oligopolistic market conditions.

AN INTERACTION APPROACH TO MARKETING AND PURCHASING STRATEGY

Malcolm T. Cunningham and *Elling Homse*

THE CONCEPT OF STRATEGY

The marketing and purchasing activities conducted by a manufacturer of industrial products are part of the company's total operating activity which also includes such functions as production, finance, research, and development, etc. The performances of all these functions are subjected to certain management guidelines whether explicitly stated or simply accepted as the company's `way of doing things'.

A number of such guidelines or decision rules have the purpose of regulating the company's interface with its environment, including suppliers, customers,

competitors, government, and financial institutions. The company's rules and guidelines for handling its relationship with the environment is what we shall refer to as strategy.

As a process, strategic planning has three facets; external and internal analysis, the setting of objectives, and implementation of strategic action. External analysis is the term applied to the assessment of market trends, the objectives and strategies of other companies, government activity, and a host of other factors which impinge on the company's operations. Internal analysis identifies the strengths and weaknesses of the company in terms of human skills and technical capabilities. Particular strategic actions seek to alter the relationship between the company and its environment.

A distinction is often made between strategy and tactics, the latter being concerned with more short term actions which have only limited effects on the company's performance in relation to its environment. Although such a distinction may often be useful, for example in relation to the organizational levels at which certain decisions are made, we shall, for the sake of simplicity, refer to all important actions as strategic.

AREAS OF STRATEGIC DECISION-MAKING

Four general areas of strategic planning may be identified.' At the most general level there is societal strategy which is concerned with the legitimacy of the business in terms of society's values and priorities, and the company's contribution to society's welfare.

Then, within the boundaries of societal strategy, there is entrepreneurial strategy which is concerned with the identification of new business opportunities and divesting the company of unprofitable products and markets. Entrepreneurial strategy is, in other words, concerned with the dynamic of the company's product—market mix.

The implementation of entrepreneurial strategy is left to a third area of business policy referred to as competitive strategy. An important part of competitive strategy is concerned with handling the commercial, technical and social conditions upon which the relationship with suppliers and customers is based.

An important feedback loop between each of these three levels of strategic decision-making is evident. The problems and opportunities revealed at the level of day-to-day competitive activity and interaction with suppliers and customers clearly influences the search for new opportunities at the entrepreneurial level.

The opportunities identified, in turn, influence the balance between social responsibility and other company objectives at the level of societal strategy development.

A fourth area of activity has been termed organizational strategy and deals with the provision of resources and administrative systems for the company's interface with its environment at the societal, entrepreneurial, and competitive level. The growing size and increased divisionalization of companies over the past decades has accentuated the problems of communication and control. Also, a

growing recognition of the impact of organization and administrative processes upon the functioning of the company as a whole has increased the call for attention to this area of strategy.'

The data collected and presented in the case studies focuses on the establishing and maintaining of relationships between supplier and customer companies and the organizational arrangements and procedures developed for this purpose. Our discussion of marketing and purchasing strategy which follows this introduction can thus be identified as belonging to the entrepreneurial, competitive, and organizational areas of strategic decision-making.

THE PROCESS OF STRATEGY FORMULATION

The process by which any overall strategic plan or specific strategic choice is arrived at is by no means simple. It may be best illustrated by identifying two different schools of thought. Conceptually these may be thought of as occupying different positions on a continuum, and are referred to as the rational–comprehensive method and the process of disjointed incrementalism.[3]

The rational–comprehensive method makes three basic assumptions; first, that the goals and objectives of the company may be clearly identified and agreed upon. Secondly, that all the information required for a complete evaluation of the company's environment and its internal strengths and weaknesses, is rapidly available to the strategic planner. Thirdly, that the resulting choice of the strategy which best meets the objectives is a rational choice supported by all members of the organization.

The alternative approach of disjointed incrementalism challenges the previous view on all accounts. Corresponding closely to the behavioural theory of the firm,[4] it proposes that it is virtually impossible for an individual, and even more so for an organization, to identify and rank in terms of their relative importance, the multitude of often conflicting goals and objectives held at any one time. Secondly, it recognizes that most of the information required for the internal and external analysis is not readily available. For example, knowledge of the strategic plans of other companies, whether suppliers, customers, or competitors, is essential to the comprehensive external analysis. The only information readily available is what may be deduced from specific actions by these companies, providing knowledge of only a fraction of their overall strategy. Finally, the disjointed incrementalism approach accepts that individual members of the organization have different goals and objectives which cannot be simultaneously met by a single set of decisions.

Based on quite different assumptions, this alternative approach to strategy formulation involves a continuous process of choice between policies which differ only marginally from the status quo. Objectives are not explicitly formulated but rather implied in the strategic decisions made, and each decision may deviate from the path of previous decisions either because the emphasis is shifted to different objectives or in response to new information about the external or internal environment.

In accordance with this approach, every company has a strategy even if it is

never made explicit. In most cases, however, strategy is formulated by a combination of the two approaches. Broad strategic decisions are based on partially formulated objectives and incomplete estimates of external and internal affairs. These broad strategies are then implemented in a stepwise manner by continuously responding to new information and pressures from organizational members to attend to different objectives. The resulting actual behaviour then feeds back into the next attempt at planned strategy formulation.

The position at which a company finds itself on the continuum between rational—comprehensive strategy making and the process of disjointed incrementalism, is likely to depend on a number of factors such as company size, type of ownership, market structure, and perhaps most importantly, the cultural setting of the company. It would seem reasonable to speculate that a quite different attitude towards participation and authority in, for example, France and Germany compared to Sweden would significantly influence the nature of the strategy formulation process.

The limited number of case studies included in this volume, as well as their emphasis on intercompany relationships, rather than on strategy formulation, prevents us from exploring this hypothesis further. Illustrations may be found, however, which throw some light on the strategy-making process and also show how strategy is implemented through a mixture of the two approaches. *Britmet* for example, has a clearly formulated strategy to guide the channel development and resource investment in overseas markets, indicating a preference for high technology customers, and the avoidance of a too high market share which might evoke competitive retaliation. The policy regarding customer choice is then modified by the opportunity arising in Italy to become a major supplier to a low technology customer, and strategies for handling different customer relationships are clearly developed by an incremental approach responding to the characteristics and requests of particular customer companies. The different nature of the relationship with the UK, German, and Italian customer illustrates this. The purchasing case of *Teximac* shows how the company in a rather unplanned and incremental fashion came to adopt a multiple sourcing policy for a particular component. A second source in Germany was developed due to a shortage of capacity in the UK. Then when a key person in the German company left to set up his own business, he was taken on as a third source. The situation which has evolved is now reported to be dealt with in a more planned or rational—comprehensive manner, including decisions regarding the proportion of supplies bought from each of the three companies and whether to acquire the UK supplier.

STRATEGY AND THE INTERACTION MODEL

The interaction model described in Chapter 2 discusses a number of factors which may influence the nature or characteristics of the interactive relationship between a supplier and customer company as well as the `atmosphere' in which that relationship exists. Strategy formulation in this context may be seen to serve a

dual purpose. Firstly, as strategic planning includes the evaluation of aims and objectives, guidelines as to the type of interactive relationships the company wishes to develop are arrived at. Whereas the interaction model focuses on individual interactive relationships, strategy is concerned with the composition of different relationships, in the company's portfolio of suppliers or customers.

Secondly, the strategy formulation process will include in the internal and external analysis, information such as market structure, government policies, company structure, technology, and resources etc., factors which are all seen as having an important bearing on the company's ability to develop such relationships.

Resulting strategic actions may thus be seen as facilitating interaction with individual companies.

The French company *Sud Composants,* for example, found that its relative strength as a supplier was dependent on an extensive technical relationship with customers that had particular application problems which did not interest the larger volume suppliers. By pursuing a clear market segmentation and product adaptation strategy, the company reported a high degree of success in selecting customers susceptible to the kind of supplier-dominated relationship aimed at.

A somewhat different illustration is provided by *Sprinter* which adopted a strategy of multiple sourcing in order to avoid those supplier and market characteristics which could lead to relationships in which the customer became over-dependent on a particular supplier.

Having cited some examples where an explicit strategic choice facilitated the development of certain kinds of relationships, it should also be pointed out that a large number of cases illustrate clearly how specific relationships develop through a process of responding to actions or requests by other parties, and could hardly have been anticipated and incorporated in any predetermined strategic plan. Again, this is evidence of the interplay between the rational–comprehensive and the disjointed incremental processes of strategy development.

The interaction approach to the study of industrial marketing and purchasing postulates that the interactive relationship between companies is central to their marketing or purchasing activities. Information and experience from specific relationships can be seen to influence strategic decision-making in many other areas. Particular adaptations to products or manufacturing processes in order to facilitate a particular relationship often influences the overall product policy or manufacturing technology of the company.

Similarly, specific distribution or stockholding arrangements arranged with a particular supplier or customer may well alter the company's general policy on these matters, and so on.

A two-way interplay relationship between the interaction process and strategy formulation can thus be seen. Strategy is used as an aid to choose and develop certain types of relationships, and these relationships, in turn, influence strategic choices in other areas.

The following two sections deal with marketing and purchasing strategies respectively. In many respects, these two areas of strategic decision-making are similar. They are both concerned with the interface between the organization and

the environment, supporting the company's efforts to control and react speedily to events which influence its ability to fulfil objectives and goals.

Marketing and purchasing strategies are, in many respects, reciprocal activities. Marketing strategy is partly formulated in response to customers' purchasing behaviour and vice versa.

Another link between marketing and purchasing strategy is that both may be split into what we shall call interaction facilitating and interaction implementation strategies. Interaction facilitating strategies position the company in its environment in such a way as to maximize its ability to develop the desired kind of supplier or customer relationships. These strategies include the choice of supplier or customer country to be approached, the choice of companies with whom to establish new relationships and the choice of interaction channel.

Interaction implementation strategies are aimed directly at changing the nature and content of the interactive relationship itself. The pattern of inter-company personal contacts is the most important means through which such changes are implemented and the areas of influence include the exchange of technical and commercial information, adaptations, social exchange, and the resulting change in the atmosphere of power or of dependence, co-operation, and trust in which the relationship exists.

By using case examples we hope in the following to illustrate both interaction facilitating and implementation strategies in order to show how the interaction approach to marketing and purchasing may add to the existing theory and understanding of strategic planning.

NOTES

1. The four areas of strategic decision-making correspond to Ansofi's Principal Managerial Activities. See Ansoff (1977).
2. In their study of corporate planning practice in the UK, Denning and Lehr found that the rate of technological change, degree of capital intensity and growth and variability of turnover all influenced the extent to which strategic planning was practiced (Denning and Lehr, 1972).
3. These phrases were first used by Lindblom and Braybrooke who, along with Cyert and March presented one of the first challenges to the rational–comprehensive view of organizational decision-making. See Braybrooke and Lindblom (1963), and Cyert and March (1963).
4. Cyert and March (1963).

AN INTERACTION APPROACH TO MARKETING STRATEGY

Malcolm T. Cunningham and Elling Homse

Business strategy was outlined in the previous section as having three inter-related facets; internal and external analysis, the setting of objectives and the resulting choice among different alternative courses of action. Whether a company's

marketing strategy is arrived at by a rational–comprehensive or disjointed incremental approach, various concepts and analytical techniques exist which allow the company to evaluate its products and markets in order to establish which strategic actions may need to be implemented. Examples of such techniques would be product life-cycle analysis, product portfolio analysis and diversification analysis.' Our aim here is to discuss only those techniques which may be developed further or interpreted differently by applying an interaction approach to marketing strategy. In addition, we shall introduce the concept of customer portfolio analysis which has emerged from our study of supplier–customer relationships.

Similarly, there are a number of areas of strategic choice or action, some of which relate closely to analytical techniques such as those mentioned above. Again, our aim is not to comprehensively cover all areas of strategic choice, but rather to discuss those which may be illustrated from the case-studies.

Strategic marketing planning is a closely integrated process rather than a set sequence of discrete activities. Any strategic choice implies certain aims or objectives as well as an evaluation of the company's present capabilities and the requirements of a particular market. Similarly, the use of any analytical technique implies that certain objectives are being adhered to, and certain strategic choices follow as almost inevitable decisions. In spite of these overlaps between different facets of the strategy-making process, we shall first deal with some concepts and techniques for evaluating products, markets, and customer relationships and then look at some areas of strategic choice.

CONCEPTS AND TECHNIQUES FOR PRODUCT–MARKET EVALUATION

Interactive Relationships Throughout the Product Life-Cycle

Although the product life-cycle concept has many more limitations than were originally envisaged, it remains a useful aid to the choice of strategic alternatives. Basically, products are seen to move through four stages during their life; introduction, growth, maturity, and decline. Different strategic choices regarding pricing, promotion, distribution, and so forth, are seen to be appropriate at each stage. The interaction approach to marketing strategy suggests that each stage in the life-cycle may also be associated with different types of interactive relationships. The case of *Belter* illustrates how the Company's need for technology development during the early stages of the product's life was met by establishing close and extensive relationships with designers and engineers in customer companies and readily making technical adaptations to particular customer needs. As the product moved from its development stage to growth and maturity, Belter failed to recognize that the emphasis ought to be on facilitating and encouraging different kinds of relationships. The strategic emphasis normally associated with the growth stage is one of market differentiation and establishing a market niche which can withstand the increasing competition as the product

moves into maturity. With reference to industrial products, this would mean identifying the types of environments, product variations, and customer characteristics which would maximize the company's interaction ability. Unfortunately, Belter continued a policy of product proliferation based on technical co-operation and development and found its position in the market weakening.

The strategic objective of the maturity or saturation stage of the life-cycle is usually defensive and aimed at maintaining market share. The main ingredients of interaction strategy at this stage would be the ability to maintain customer loyalty. Interaction with customers will probably emphasize logistic developments and adaptations more than technological co-operation and innovation.

As the product moves from maturity into decline, the strategic task is either one of maintaining relationships with minimum resource involvement (`milking' the product), or bringing the product into a new cycle of growth and maturity through major product innovation or a radical market change. *Svensk Processteknik* is an example of a supplier which has encountered increasing competition as its innovatory lead as a supplier of chemical plant has been eroded. It seeks to maintain sales in world markets by a strategy of providing extra help to customers to make the most efficient use of the equipment in various specific applications. It develops close developmental relationships with a chosen few technically innovatory customers and these provide assurance to new customers of the suitability of the plant being offered. Many equipment and plant suppliers are faced with the need both to innovate and guarantee the continuity of offering well proven designs.

Customer Portfolio Analysis

The portfolio concept is usually applied to the analysis and combination of different financial investment opportunities. The objective of the analysis is essentially to spread the investor's resources among alternative investments which make different contributions to his needs for security as well as high levels of return, liquidity as well as capital appreciation, and so on. The portfolio concept has also been used to evaluate a company's range of products,' and the combination of market segments.'

The interaction approach to marketing strategy suggests that the portfolio idea may also be applied to a company's range of relationships with customer companies. As the interaction model implies, and a number of the case studies illustrate, different customer relationships serve to fulfil different supplier needs. The most prominent interaction objectives, other than to achieve product sales, would seem to be the need for technical co-operation and assistance. Companies fulfilling such a purpose may be termed `technical development customers'. The relationship between *Mekanik and Motor* and the domestic customer Stora Skeppsvarvet is clearly of this kind. The customer has been an active partner in new product developments and tests new products or product modifications

before they are offered to other customers. A similar relationship is found between *Mecamine* and its domestic customer Durfer.

Of crucial importance to most companies is to have a number of what we may term `cash flow customers'. These are relatively large, loyal customers purchasing a steady volume of products and thus providing the supplier with a regular cash flow. *Britmet's* UK customer is a good example of a cash flow customer having used Britmet as virtually an exclusive supplier for almost fifty years.

It is not uncommon that a cash flow customer is simultaneously a technical development customer. *Unifix's* domestic customer, British Engineering, is clearly in this category, being Unifix's largest customer as well as a partner to technical research and development. *Swesteel's* customers S1 and E1 are also examples of what might be termed `high involvement customers'. These types of relationships inevitably tie the two companies closely together and may lead to a situation of excessive dependence on a single customer and thus being regarded as less attractive than a separation of technical development and high volume customers.[4] Another problem with high involvement customers is the inertia which the relationship often acquires, leading to difficulties in reducing the extensiveness of the relationship as the need for technical co-operation diminishes or the volume of sales reduces.

A large amount of human, financial, and technical resources is normally required to maintain the relationship with high volume and technical development customers. Because resources are invariably limited, a supplier can only have a certain number of customer relationships requiring a high level of interaction. Often a majority of the customers are what one may call `low commitment customers' which individually do not contribute significantly to either sales or technical development, but in return place only minimal demands on company resources. *Swesteel's* `main group' of customers are clearly in this category.

We may combine the two evaluation criteria of level of sales and benefits from technical co-operation to form a matrix of customer categories such as those suggested in Fig. 1.

The matrix in Fig. 1 only incorporates two dimensions or major criteria of the customer portfolio analysis. A third dimension would include the customer's

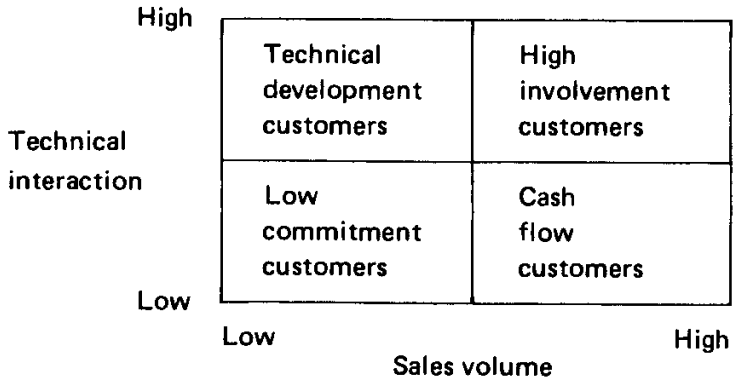


Fig. 1 Two dimensions of the customer portfolio

importance as a `reference point', serving to introduce the supplier into new markets. In the *Unifix* case, every effort was made to establish a close relationship with the German customer Elektroverk which might provide an entry into the large German capital plant contractor market. Identifying reference point customers was also reported as an element of the French company *Sud Composants'* strategy. It should be pointed out that not only the first customers in a particular market may have a reference point effect, but also large or prestigious customers which are known to apply stringent criteria to their selection of supplier companies.

A possible fourth criteria for choosing companies to include in the customer portfolio would be their ability to provide the supplier with important commercial information. It is not unusual for such customers which are particularly knowledgeable about their own industry and markets to become agents or distributors of the supplier's products.

One of the difficulties of the customer portfolio concept is to determine the level of product aggregation to which it should be applied. Should there be a balance of customers for individual products, or is the unit of analysis the product group or even the company as a whole, possibly including several quite different business areas?

There is no ready made and complete answer to this question. It is possible that the matrix in Fig. 1 contains an internal inconsistency in that technical development customers would seem to be of value for each product category, whereas a balance of cash flow and low involvement customers is necessary only at the level of the company as a whole, assuming a free flow of resources between product areas. It is evident from this that further developments of the customer portfolio idea will need to consider different organization structures. A close connection with the product life-cycle concept is also evident. As pointed out earlier in the case of *Belter,* the portfolio balance would seem to shift away from technical development customers as the product moves through its life-cycle.

Diversification Analysis Applied to Customer Interactions

Companies seeking either to increase the size of their operations or to protect their present market position against competitive inroads, may do so either by intensifying their support of present products and markets, or by directing their attention towards new products or markets. The alternative strategies resulting from such choices are outlined in Fig. 2.

This type of analysis may be related to the customer portfolio concept discussed earlier. A product development strategy, for example, would influence the portfolio in favour of technical development customers. A market development strategy would balance the portfolio in favour of reference point and commercial development customers.

The case studies include several examples to which diversification analysis may be applied. Both *Britmet* and *Stahlwerke* for example, embarked on a market development strategy as a way of maintaining, or even expanding their business in

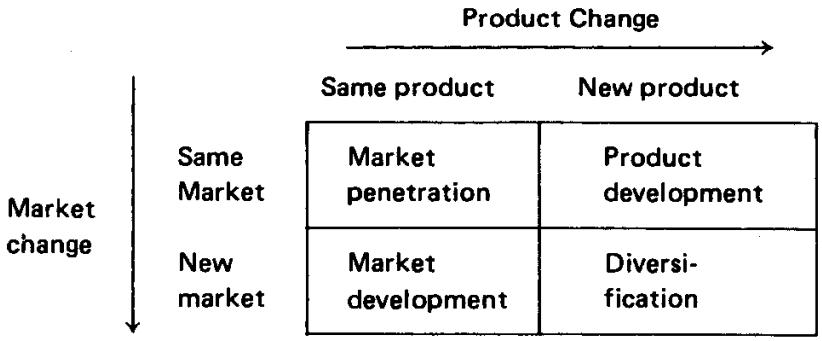


Fig. 2 Diversification analysis[5]

the face of increasing competition. In both cases, an important ingredient of their strategy was the establishing of close interactive relationships to deal both with technical and commercial matters.

Mecamine, the French supplier of mining equipment, followed a clear product development strategy, relying to a considerable extent on the close technical co-operation with a major French customer.

Market Development Grid

If a supplier pursues a course of market development, there arises the need to evaluate the merits and disadvantages of different market opportunities. A company seeking to expand its activities in existing or new countries or territories will often find that establishing new customer relationships requires a temporary commitment of a large amount of human and financial resources, often greater than is required for maintaining existing relationships. There is some indication of this in the case of *Britmet,* a UK manufacturer of raw materials who found that when developing the German market, a sales force of eight was required to sustain a £ 15m turnover, whereas only five representatives were needed in the UK to support sales of £60m. It should be pointed out, however, that the difference in resource requirements is not as large as the different number of sales representatives seems to suggest. It is evident that a larger number of non-marketing personnel are involved with the domestic customers, both due to the shorter physical distance and the fact that most of Britmet's largest and most involved customers are found in the home market.

A supplier is not always in a position to make a unilateral and well planned choice of markets. The *Sprinter* case illustrates this most clearly where rubber component suppliers in seven different countries were suddenly required to respond to a customer's purchasing initiative. They found themselves supplying the British market which they were likely to have previously considered as being dominated by Sprinter's large domestic supplier enjoying a near 100 per cent market share. However, to the extent that the supplier does make a planned choice of markets in which to expand his operations, his choice will be determined by the potential returns from extended operations and the amount of resources needed to overcome the barriers to purposeful interaction with companies in that

country or territory. The supplier's ability to expand in a certain market may be constrained by such things as:

—the economic stability of the country, particularly with reference to exchange rates, labour relations, and industrial performance.
—the social distance between supplier and customer country affecting the amount of knowledge and skills required with respect to language, business protocol, etc.
—the physical distance between supplier and customer country affecting the cost of transport and also the cost of sales representation, servicing, etc.
—the strength and nature of competition in the customer country.
—the disposition of companies in the customer country towards dealing with foreign companies.

Few of these barriers to market entry or development easily lend themselves to quantification, and moreover, their relative importance is difficult to determine by other than subjective evaluation. If, nonetheless, each country is evaluated along these dimensions and awarded an overall judgement with respect to the problems and difficulties of operating in them, a market grid may be constructed using market potential and market barriers as the two dimensions.

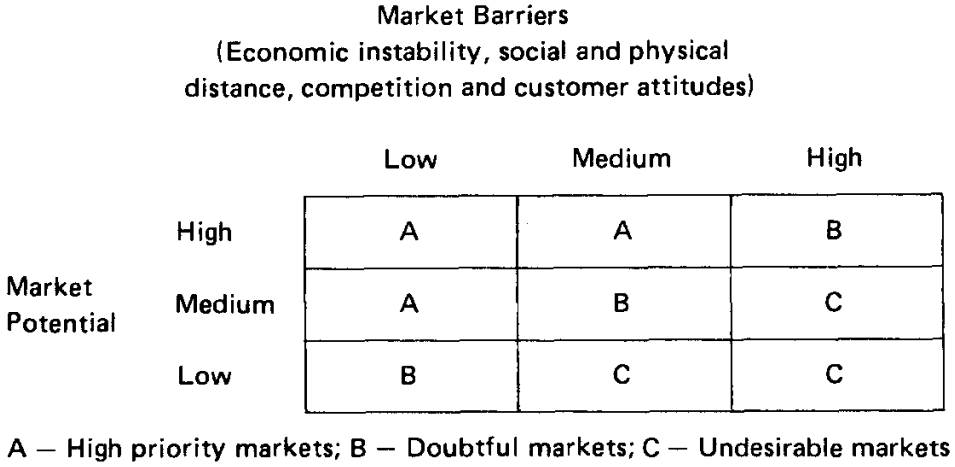


Fig. 3 The market development grid[6]

It must be emphasized that the country grid analysis is used to evaluate the overall attractiveness of markets. It may well be that individual customers will not conform to the overall evaluation of their country, and the supplier may, therefore, have some involvement in countries which are not given priority in terms of resource investment.

The Experience Curve Applied to Planning and Handling Relationships

The experience curve, or learning effect, is based on the simple notion that experience improves performance. This principle may be applied to any area of

human activity, but of particular interest has been the relationship between manufacturing costs and levels of output. Studies have indicated a significant negative relationship, suggesting a cost reduction of 20—30 per cent with each doubling of output over quite a wide range of output levels.' The strategic implications of these findings has been to suggest that companies should aim at obtaining a large market share at the expense of profits during the growth stage of a product's life in order to enjoy substantially lower costs in later stages of the product's life as a result of the experience curve effect.

The handling of customer relationships is also likely to benefit from the learning effect. Although each relationship is unique in many respects, there will undoubtedly be significant benefits accumulating in the early stages of dealing with customers in new markets or industries.

The French company *Mecamine* for example, established a very extensive relationship with one of their domestic customers, partly to benefit from technical co-operation, but also in order to get a deeper insight into the types of customer relationships which they would establish at a later stage with prospective customers in the same industry. The cost of establishing such a high level of interaction, particularly the cost in terms of human resources, was offset against further benefits resulting from a greater skill of handling the relationships with this type of customer.

Interaction Criteria for Market Segmentation

The interaction model identifies a large number of factors which influence the interactive relationships between supplier and customer companies. The nature and characteristics of the relationship depends largely on the characteristics of the two companies, the atmosphere of power and dependence, co-operation, and closeness, and the economic, political, and social environment surrounding the two companies. In terms of detailed characteristics, each relationship is unique, if for no other reason than that the attitude and experience of the individuals involved are different in every case.

Market segmentation theory is based on the notion that although customers are unique they may be grouped into relatively homogeneous categories which respond in a certain manner to the supplier's marketing efforts. Before being referred to as market segments, each of these categories must also be capable of being reached by a particular marketing strategy, and viable in the sense that the additional cost of a specifically tailored approach is less than the benefits achieved.

To the extent that a supplier deals directly with customers through his own sales representatives, customers may be reached by any combination of marketing strategies, and many customers are sufficiently important to be treated as separate market segments, in some respects at least. Every instance of special product adaptations to suit a particular customer's requirements, is an example of that customer being treated as a separate market segment with respect to product policy.

However, the discussion of the customer portfolio emphasized that a supplier is unlikely to have the resources required to treat every customer individually. Therefore, the need to group customers into market segments exists, and the customer portfolio concept itself implies a number of segmentation criteria; commercial and technical development customers, high involvement and low commitment customers, cash flow customers, and reference point customers.

The main contribution of a supplier–customer interaction approach to market segmentation theory is to suggest that customers may be meaningfully segmented according to the type of interactive relationship required or aimed at in terms of technical and commercial information exchange and adaptations, and the social quality of the relationship.

STRATEGIC CHOICE AREAS

The choice of specific courses of action or behaviour results from an implicit evaluation of company objectives, capabilities, and external factors, often using some of the analytical techniques referred to earlier. Sometimes strategic decisions are far-reaching and have wide resource implications for the company, other times their impact on the company and its operations is minimal. Sometimes companies are forced to take action in response to customers' requests or behaviour, competitors' activities, structural changes in the market, or a downturn in the level of business activity in general. On other occasions, companies primarily act to seek out or respond to particular opportunities for growth and expansion. Most of the time, however, both reasons come into play, as is clearly seen in several case studies. *Autostart* for example, a UK component manufacturer, was turning its attention to Continental vehicle manufacturers as a result of the falling away of home markets due to competitors' aggression as well as a move among European vehicle manufacturers towards more widespread multiple sourcing.

It may be necessary here to reiterate that the purpose of strategic behaviour may be seen either as facilitating or directly influencing supplier–customer relationships. Strategies related to such things as the choice of countries or markets for further involvement, the use of different channels of distribution and communication, or the nature of the product offering, may all be seen as facilitating interaction. Strategies concerned with the breadth and frequency of inter-company personal contacts, the flow of information between two companies, technical and commercial adaptation and co-operation, etc., may be seen as influencing the nature and characteristics of the interactive relationship itself, and will be referred to in the following as interaction development strategies.

Strategies Involving Country Choice

The market grid analysis discussed earlier may well be applied to *Britmet's* choice of export markets. From an evaluation of costs and difficulties against potential benefits, Germany was seen to be the most attractive market, in spite of the fact that a considerable investment had to be made in setting up a sales office and

employing four German nationals as sales representatives. This was seen to be necessary in order to overcome social distance, in particular the commercial complexities of the German economic and business system.

The Swedish market, on the other hand, was judged to be rather modest in terms of sales potential, but was nonetheless attractive to Britmet. It consisted mainly of three large customers, competition was minimal, and no social barriers were seen to necessitate setting up a sales subsidiary as the case had been in Germany.

The Italian market was seen to be able to sustain high future growth, but in spite of this it was given low priority by Britmet. It was perceived as being very volatile politically and in terms of exchange rates, and serious difficulties were also experienced in understanding the Italian way of doing business. Britmet explicitly pursued a strategy of sequential attention to markets in order of their attractiveness.

This `market concentration' approach may be contrasted with a `market proliferation' strategy where resources are divided widely amongst a number of markets and the supplier is `creaming off' that amount of business in the country which may be obtained with relatively little effort. The nature of the product and market conditions, including competitive factors, generally determine where a company may position itself on the continuum between these two extreme strategies.

Interaction Channel Strategies

The selection of interaction channel is essentially a choice between direct customer contact by supplier's head office based personnel, or an associated or subsidiary company. The number of alternative channel choices available is often constrained by the availability of resources, the wishes of customers, problems of abandoning existing arrangements, as well as customs and practices in different countries.

Traditionally, it is accepted that marketing channels serve numerous functions related to the transaction and distribution of goods and their associated services. An interaction approach to marketing and purchasing emphasizes that in addition to this product and financial exchange, the channel is an important means of informal and often confidential technical and commercial information exchange and plays a vital role in establishing an atmosphere of co-operation, trust, and loyalty between the two companies.

The supplier often tries to establish an interactive relationship between several functions in the two companies, but partly due to resource constraints, the channel has to act as a proxy for direct contact between commercial and technical departments in the two companies. An agent may, for example, be able to deal with customers on behalf of supplier's sales, engineering, production and quality control people, but only in situations of low technical and commercial complexity. The sales subsidiary may very effectively take the place of direct interaction in all areas and at any level except perhaps in cases of complex technical adaptations.

Direct customer interaction by supplier personnel may be most suitable for technical and commercial exchange, but an agent of customer's nationality may be needed to establish close social links between the two companies. It can thus be seen that certain people or organizations comprising the different channels are better placed than others to deal with each aspect of the relationship at the level or in the form that the supplier wishes to achieve. We shall refer to the simultaneous use of different channels as the channel mix.

A number of factors determine which channels are established in a country and the emphasis placed on different alternatives in the channel mix with regard to individual customers.

Considering first the effect of the product technology on channel choice, it would seem that the most important product characteristic is its complexity or the complexity of its application. A highly complex product generally requires a high level of technical interaction in the form of information exchange, adaptations, and service, and whoever is handling the customer relationship must have the necessary technical expertise and knowledge of the facilities and capabilities of the supplier. As the *Autostart* and *Swesteel* cases illustrate, high technology products invariably necessitate the direct involvement of supplier company based personnel. This does not mean that agents, sales offices, or subsidiary companies may not also be involved. In the Swesteel case, all other aspects of the relationship are dealt with by subsidiary companies in the countries concerned. Autostart's fireparts division use sales offices abroad for much of the non-technical customer contact, and both Autostart divisions rely almost exclusively on separate service subsidiaries for after-sales service.

Secondly, amongst the many commercial considerations affecting channel choice, is the supplier's familiarity with the business system in the customer's market or industry. An important aspect of the interaction with customers is the exchange of commercial information and negotiating the terms of contract and commercial adaptations, all of which requires a knowledge of local business practice.

Britmet found that the use of a sales office staffed by nationals was essential in Germany because of the commercial complexities of the German economic and business system. The *Unifix* case illustrates very clearly how the supplier depends entirely on an extensive network of well-connected agents for information about potential customers and market trends.

A third factor affecting channel choice is the requirement for developing a certain quality of supplier—customer relationships which we refer to as the `social exchange'. In most relationships, a successful social exchange which leads to confidence, trust, and free informal information flow between the interacting parties, is dependent upon a certain closeness or identification between people representing the supplier and customer company. One of the major barriers to this closeness is undoubtedly differences in language and cultural background. It is not surprising, therefore, to find that the majority of companies studied do involve local nationals of the countries to which they export. Most commonly, nationals

are used by involving local agents, but in some cases, notably Swedish based companies, local nationals are employed in sales offices or sales subsidiaries abroad. One of the main tasks of local nationals is usually to maintain regular informal contact with customer personnel and interpret on behalf of the supplier the attitudes, opinions, plans, and intentions of customer companies.

The ability of buying and selling companies to interact directly or through the medium of channel intermediaries is often a function of the physical distance between them. In addition to reducing social distance, a particular channel arrangement may serve to reduce the perceived physical distance by including stock-holdings or service facilities in the customer country. Many of the case studies provide evidence of the necessity for suppliers to provide such facilities in various markets.

An important determinant of a supplier's channel strategy is his ability to control marketing activities, in particular the interactive relationship with customer companies. A supplier-owned channel, rather than an agent or distributor, is often preferred from this point of view. An illustration of this is found in the case of the German steel producer *Stahlwerke* who established a third and wholly owned marketing channel in the form of sales subsidiaries acting in parallel with existing channels, in order to achieve better coordination and control of marketing activities. This case also shows how a supplier uses different channels not only with respect to customers of different size and importance, but also changes the `channel mix' over the business cycle.

The type of channel used often reflects a supplier's commitment to a particular market and this is how it is also seen by customers. By the very fact of choosing resource demanding alternatives such as sales subsidiaries rather than agents, a level of confidence is often inspired and facilitates more extensive and involved relationships with customers.

Product Differentiation Strategies

There are numerous examples in the cases where the supplier has been able to strengthen his position vis-à-vis competitors by altering or extending the product offering. These are strategies which might be classified as `product development' in terms of the diversification analysis discussed earlier.

Sometimes the product is differentiated in terms of its technical properties as was the case of *Svensk Processteknik* which used to enjoy a considerable advantage on the basis of its superior technology. As competitors improved their technology and were also offering more competitive prices, Svensk Processteknik was able to maintain its position to some extent at least by offering a better product and service package which often involved the designing of whole plants incorporating the product. The offering of a complete package of products and services is usually referred to as systems selling, and is often found to increase in importance as a differentiation strategy as the scope for purely technical product differentiation diminishes.

On the continuum between individual product sales and systems selling, are a number of intermediary stages where the supplier differentiates his offering from that of competitors by giving technical or commercial services supporting the product sale itself. An important reason why the British raw materials supplier *Britmet* became the major supplier to the Italian customer Istal was the fact that the customer relied upon Britmet's technical advisory service to compensate for its own lack of expertise.

One case study compares the marketing of a German machine tool manufacturer *Maschinentechnik* and a German engine manufacturer *Motoren* and identifies the wide range of services which accompany a product sale. Some of these services constitute the basic core of services which the supplier is usually willing to offer or on which he will negotiate terms with customers. Other services are in the form of special adaptations to products or administrative systems which may be offered or conceded in specific circumstances, depending upon the relative power balance in the supplier—customer relationship. The supplier is thus able to develop a service strategy to differentiate his total product offering from those of his customers or else to conform to the offerings made by his competitors.

Customer Entry Strategies

Supplier—customer relationships in industrial markets are characterized by a high degree of stability and mutual loyalty. The risk and inconvenience associated with supplier change often means that the advantages of such a move must be considerable. This situation makes the task of breaking into an existing relationship one of the critical areas of strategic choice.

One strategy in evidence in the case studies is to reduce the customer's technical risks and inconvenience by offering a product which is completely interchangeable with that bought from other suppliers. This `interchangeable product' strategy was used by *Autostart* when trying to break into the large European car manufacturers.

Autostart also pursued what may be termed an `end-user specification' strategy. Considerable marketing efforts were directed towards the large-vehicle owners, persuading them to specify that Autostart's product should be fitted to new vehicles bought by them. One of Autostart's products was first sold to an Italian vehicle manufacturer only after the customer's UK agents had strongly recommended that Autostart should be used as an alternative supplier. Similarly, it was quite clear in the case of *Unifix* that the order from Shiffsverft in Germany would not have been obtained had it not been for the influence of the final customer, the Irish shipowner.

Unifix also made use of a strategy of `submission to customer demands'. In the case of the other German customer, Elektroverk, Unifix readily accepted an extended warranty period, a severe penalty clause for late delivery, as well as price concessions. In doing so, the customer's financial risk was reduced, and at the

same time the benefits in terms of price were increased, and thus the customer's evaluation of costs and benefits came out in Unifix's favour.

Customer Interaction Strategies

The discussion of customer portfolio analysis suggested four objectives which might be fulfilled through interacting with customer companies. Firstly, and generally most important, there is the sale of products and services. Secondly, the supplier may wish to gain access to certain technical expertise and facilities. Thirdly, the supplier may seek to obtain useful commercial information such as details of competitive companies' offering and market trends. Finally, the relationship may be valuable as a manifestation of the supplier's presence in a particular market.

The supplier will position himself in the market and design his product offering and marketing mix so as to become attractive to potential customers which will fulfil some or possibly all of these objectives. Faced then, with a given set of customer relationships, the supplier will try and influence each of these in certain directions in order to increase the fulfilment of interaction objectives.

Certain interaction strategies may primarily be aimed at influencing a specific aspect of the relationship. However, the balance between such aspects as the information exchange, social exchange, the amount of institutionalization, and the atmosphere, is so delicate that any action aimed at influencing one aspect will have an effect on the others.

The most useful mechanism for influencing the relationship is the personal contact pattern.' In the case of *Autostart* for example, frequent personal contact was seen as an important means of establishing trust, loyalty, and technical confidence with existing and potential customers. In order to maintain general customer confidence and loyalty as well as a high level of technical information exchange, *Britmet's* strategy with respect to its German customer has been to formalize personal contacts involving different levels and functions in the two companies.

A strategy of limited exchange, no adaptation, and only infrequent personal contact was adopted by *Unifix* with regard to the potential Swedish customer. This strategy facilitated very little social exchange, and the atmosphere of the relationship became one of non-co-operation and lack of trust. The difference in atmosphere surrounding relationships at different levels of interaction and co-operation is indicated in the *Swesteel* case where some relationships are referred to as `open friendly' and others as `strictly business'.

There is a large body of literature in the general area of buyer behaviour which deals with the nature of the purchasing process; whether the various purchasing decisions are joint or individual, the extent of influences upon the decision-making process and so forth. Much of this literature has implications for interaction strategy in that it may indicate which contacts should be established for technical and commercial information gathering and negotiation together with the

importance of adaptations and social exchange in the purchasing process. An appreciation of the customer decision-making process is shown by *Mecamine, a* French supplier of capital equipment. Its general strategy is to deal with the customer through a three-stage process. First, initial contact is made by the supplier's agents or sales representative with the potential customer's technical and production departments. Second, once interest has been established the supplier's sales engineers take over the relationship. The sales engineers are very highly qualified both commercially and in terms of the customer's technology. At this second stage, contact is still with the customer's technical people. Only at the third and final stage is contact established with the purchasing department. The decision to purchase is by this time almost final and the relationship with purchasing is confined to relatively minor contractual details.

The case of another capital equipment supplier, *Svensk Processteknik,* highlights the need for different interaction strategies depending on whether an equipment purchase is currently being negotiated and the relationship is in a transaction phase, or whether the relationship is in a maintenance phase between transactions. The transaction phase is generally characterized by a high level of activity and, depending on individual circumstances, the emphasis may be on technical or commercial negotiation and information exchange, adaptations, and so forth. The emphasis in the maintenance phase is often to formalize the pattern of personal contacts and to encourage social exchange in order to maintain loyalty and a free flow of information.

The `institutionalization of the contact pattern' was also a strategy chosen by *Mekanik and Motor* in relation to the shipyard customers. With respect to the large domestic customer, for example, Mekanik and Motor followed a strategy of very close and extensive technical, commercial, and general management contact. The reason for the supplier's strategy to maintain a number of separate routes of communication and social contact was twofold. Firstly, it was the company's general strategy to try and institutionalize personal contacts in order to tie the companies closer together and encourage customer loyalty and a free flow of information. Because of the infrequency of purchase of Mekanik and Motor's product, the personal contacts had to compensate for the lack of logistic arrangements which often tie companies together in a situation of more continuous supply. Contacts to ensure a free flow of information were important due to the competitive advantage of becoming involved with the shipyards at an early stage in the design and specification stage of a new construction. Secondly, Mekanik and Motor's strategy of maintaining contact with the large Swedish shipyard was because of this customer's important role in the technical development of the supplier's product. The customer often serves as a `test bed' for new products or product modifications, a situation clearly requiring a high level of technical as well as commercial co-operation and confidence.

THE INTERNATIONAL ASPECT OF STRATEGY

All the case studies deal with companies involved with customers in several foreign markets. A natural area of investigation is, therefore, to see whether their

strategy differs between home and export markets, or even between different export markets. Our aim here is not to discuss these issues in great detail, but rather to draw attention to a few general points emerging from the cases and other parts of the data not reported here.'

The first observation is the considerable difference in level of internationalization of companies in the five countries.[10] At one extreme, Swedish companies generally appear to be at a much more advanced level of internationalization, dealing with foreign markets through sales subsidiaries whenever this approach is applicable. British companies on the other hand, having benefited from a much larger domestic market in the past, appear to have a much less developed organization for export, relying on agents and individual sales representatives covering vast territories.

Secondly, there appears to be a general tendency to adopt a quite different interaction implementation strategy with respect to foreign customers compared to those in the home market. A number of cases include illustrations of technical development or high involvement customer relationships and almost without exception these are established with domestic customers.

A third and related observation, is the tendency to use much more direct sales representation in the home market, generally avoiding agents or sales subsidiaries. The reason for this may be the shorter physical distance, or at least the perceived shorter physical distance, but it may also be considered as evidence in support of the theory that a third party involvement in the interaction channel serves to bridge the social distance between different nationalities: this bridging is unnecessary in the domestic market.

A final point which arises in one or two case studies and is well substantiated elsewhere" is the fact that considerable differences are perceived between the attitudes, capabilities, and general cultural characteristics of French, German, Italian, Swedish, and British companies and purchasing personnel. This suggests that different strategies, particularly those concerned with the interactive relationship, need to be adopted in different countries.

SUMMARY

Marketing strategy as a subject of investigation has been widely dealt with in the literature and a number of analytical techniques have been developed to guide the strategy-maker in his choice of action. Our present study of industrial marketing and purchasing adds a new dimension to the process of strategy formulation by focusing attention upon the nature of the interactive relationship between supplier and customer companies. It is not simply the number of customer accounts that matters, nor the amount of business currently enjoyed from each of those accounts. The strategic management of customer relationships involves planning and handling the breadth and depth of personal contacts between staff in several departments of the supplier company and their counterparts in the customer companies. Therefore, resource constraints must be taken into account. Furthermore, the supplier's ability to benefit from fruitful relationships with existing or new customers necessitates consideration of the amount and type of information to be

exchanged with customers and the atmosphere of dependence, co-operation, and trust which it is intended to achieve for each major customer relationship.

All marketing activities may be seen as either providing the right circumstances for relationships to be established and developed, or to influence directly the nature and characteristics of individual relationships. Strategies dealing with the former, referred to as interaction facilitating strategies, include the choice of country market in which to invest company resources and the use of different interaction channels such as sales offices or subsidiary companies, agents, or direct customer contact by supplier personnel. The nature of the product offering and the extent to which it meets customer needs better than that offered by competitors, clearly facilitates the establishing of new and maintaining of existing relationships. One of the greatest obstacles to establishing new relationships is the prior existence of relationships which customers have with other suppliers and an important area of interaction facilitating strategy is concerned with breaking into these relationships.

The second group of strategies, referred to as interaction implementation strategies, seek to influence directly the interaction processes such as commercial and technical information exchange, social exchange, and adaptations. Some of these strategies are concerned with managing the frequency, intensity and scope of personal contacts, often with the intention of creating a better atmosphere of trust and co-operation. Other interaction implementation strategies aim at drawing the two companies closer together or altering the power/dependence ratio between them. Such strategies may involve extensive technical and commercial interaction together with wide ranging adaptations leading to the institutionalization of personal contact patterns and other procedures for communication.

In handling its relationship with the total environment in which it operates the company is taking strategic action in a number of different, but inter-related areas. None of these decisions are made without implicit or explicit reference to strategic choices made in other areas. For example, *Britmet* decided to attack major European markets sequentially, establish sales offices staffed by local nationals, offer a high level of technical service and aim at customers who were themselves technically advanced, and not take an excessive share of any particular market. All these strategic choices must be seen as mutually reinforcing each other and together making up an overall strategic plan. This inter-dependence of strategic choice areas as well as the rapidly changing characteristics of the company and its environment, calls for a considerable amount of flexibility and adaptiveness in the strategy-making process.

Our discussion of marketing strategy has been largely based on a relatively small number of case studies included in this volume. A number of our findings are, therefore, tentative and suggest areas for more detailed study rather than providing conclusive answers. It is hoped that our further investigation of the much larger set of data available will enable a further development of these ideas to be reported at a later stage.

NOTES

1. A fairly comprehensive although brief discussion of a number of concepts and techniques used in strategic planning is included in Ansoff and Thanheiser (1978).
2. A product portfolio analysis based on relative market share and market growth has been suggested by the Bolton Consulting Group and is described in the following pamphlets. *The Product Portfolio* (1970), *Cash Traps* (1972), *The Experience Curve Reviewed: The Growth-Share Matrix or the Product Portfolio* (1973). See also Day (1977), Hedley (1976) and (1977).
3. See Boyd and Headen (1978).
4. A discussion of the power/dependence relationship between suppliers and customers is found under the heading *Power and Dependence in Industrial Marketing* by M. Kutschker in Chapter 5 of this book.
5. Adapted from Ansoff (1957).
6. Adapted from the Country Grid discussed in The Conference Board; *Portfolio Management Strategy,* 1969, pp. 15-21.
7. Conley, (1970).
8. The role and importance of personal contacts are discussed in more detail under the heading of *Interorganizational Personal Contacts.*
9. See Cunningham and Turnbull (1980), and Kutschker and Kirsch (1979).
10. The concept of internationalization is discussed in detail by Johanson and Vahlne (1977).
11. See note 6.

AN INTERACTION APPROACH TO PURCHASING STRATEGY

Malcolm T. Cunningham

INTRODUCTION

Purchasing operates at the interface between a company and its supply market environment. Its activities are essentially concerned with securing the resource inputs of materials, components, and equipment into the business, and in the selection and handling of suppliers of those inputs. Many earlier studies have described and analysed buying decision-making from a marketing perspective, in order to predict and influence the eventual sourcing decisions in a manner favour-able to the supply company. For example, studies have identified the stages in buying, the roles and influence of individuals on buying decisions, and the criteria used by buyers in choosing between alternative sources of supply.[1] This has led to purchasing being viewed as a process in which the focus is primarily upon specific buying episodes or discrete purchasing decisions, such as the choice of new suppliers or the exercise of source loyalty to existing ones. An overall strategic view of the range of purchasing activities from the buyer's perspective has been neglected. Obviously, purchasing is not confined to isolated decisions and short-term operational episodes.

Purchasing assumes a strategic importance to the business in that it is primarily concerned with accomplishing a match between the company and its changing supply environment. As such, strategic purchasing activities are aimed at planning

the supply inputs to the business, which can be termed strategic resource areas (Ansoff and Leontiades, 1976). This comprises general decision rules for the selection of suppliers and the management of the relationships between the customer and its portfolio of suppliers. As with other areas of strategic decision-making, purchasing strategy formulation takes several forms, referred to earlier as being on a continuum between the extremes of a rational-comprehensive and a disjointed-incremental approach. This is because certain courses of action in buying can be anticipated and incorporated into long range plans, whereas there are other unique situations for which no previous experience can be used when formulating decision rules in advance and adaptation to specific circumstances is called for. These purchasing decisions are typical of the kind of strategic decision defined by Ansoff (1965) as taking place under conditions of uncertainty and of unstructured decision processes occurring under ambiquity, which Mintzberg *et al.* (1976) characterizes as being novel, complex, and open-ended. Moreover, strategic purchase decision-making has been illuminated by applying organizational behavioural theory to help explain the way in which purchasing objectives are arrived at through a process of bargaining between interested parties and how perceived risk and work simplification affect the manner in which purchasing problems are resolved by searching for and choosing between suppliers (Wind, 1968).

The examination of the purchasing strategies which follows will emphasize the interplay between planned and unstructured decisions. Unstructured decisions often arise as opportunity decisions, which are initiated voluntarily by a customer company to improve an already secure buying situation, or they arise as crisis decisions, taken in response to intense pressures from within the company, or from external forces, such as suppliers' activities.

The strategic nature of purchasing by large, UK based multinational companies has been the subject of research by Farmer (1972). He found that buying functions often played a passive role by merely making short-term responses to the marketing initiatives of suppliers. This would lend support for the view of purchasing strategy being at the disjointed-incremental extreme of the strategy spectrum.

In only a small number of companies was buying active in formulating long-term strategies for supply source development, establishing the required relationship with suppliers and for planning the exercise of buying power in the conduct of negotiations. This approach, which is closer to the rational-comprehensive form of strategy, was evidenced by the integration of purchasing and corporate strategies, which guided buyers in their international sourcing policies. An important ingredient of this planned approach to purchasing strategy was that it was based upon an analysis of changes in economic activity and structural changes occurring in various industrial supply sectors.

Given these widely divergent approaches to purchasing strategy formulation, it is nevertheless appropriate to consider the subject in terms of the three basic facets identified earlier: an analysis of the purchasing environment, the setting of purchasing objectives and the choice of alternative purchasing strategies for their achievement.

ANALYSIS OF THE PURCHASING ENVIRONMENT

The analysis begins with an examination of various factors which limit the freedom of strategic choice by buyers. In the first instance, they arise from the customer company's own marketing strategies and economic circumstances. Secondly, they are influenced by the stage in the life-cycle which the customer company's products have reached. Thirdly, there are various technological factors surrounding the products being bought and the manufacturer's system used for processing and applying them. Finally, some constraints and influences are imposed by the organizational structure of the business and the stage to which the organization has developed in its progress towards internalization. Thereafter, and in accordance with an interactionist approach to purchasing, the focus of analysis turns to an examination of various aspects of supplier relationships.

This comprises a supplier portfolio analysis, an evaluation of the performance and marketing strategies of suppliers, and an analysis of the Company's purchasing power and of its own expertise in interacting effectively with suppliers.

Analysis of the Constraints on Purchasing Strategy

(a) *Marketing factors* The marketing strategies of the customer company impose constraints upon and largely determine the character of its purchasing strategies, because purchasing is undertaken to obtain supplies required by the company to meet its own market targets. For example, a company pursuing fast growth objectives will require that its buyers should be looking for higher volume inputs. This will demand negotiating for a greater allocation of existing suppliers' manufacturing capacity or the selection of new suppliers. Similarly, the diversification strategies of the company and the frequency of its new product introduction onto the market will cause purchasing to be looking for technically orientated development suppliers for a changing range of materials, components, and equipment. The marketing strategies affect the handling of supplier relationships and the amount of interaction with them which is necessary. It is also significant that the bargaining power with its suppliers of a successful and growing company is greater than that of a customer whose sales are declining. For instance, *Autostart* are operating in a world market for which demand for its products is increasing at 5—10 per cent per annum. Sales growth is being achieved by gaining business from a few selected customers in each European country and in the USA. Its market entry strategy is to adapt its product to suit each major customer's special needs and offer interchangeability as a means of becoming an alternative supply source. Autostart is heavily involved in joint product development with customers to retain its leadership in commercial vehicle markets.

These marketing factors have important repercussions on the purchasing strategies of Autostart, because growth in sales increases their purchasing power, but this is partly offset by their need for items of new technical specification.

(b) *Product life-cycles* Constraints upon purchasing arise from the stage in the

product life-cycle reached by various products made by the customer company for which supplies are being procured. Purchasing strategies should be co-ordinated with product sales trends during the life-cycle (Fox and Rink, 1977). At each stage of the cycle, the purchasing objectives change, as volume and profit margins change and the relationships with suppliers must be effectively managed to reflect alterations to the balance of power between customers and suppliers. *Belter's* product range shows signs of being at the maturity—decline stage of their life-cycle in that sales are declining, strong price competition is encountered, and the company can no longer effectively compete across its full range of products. The inevitable reduction of the product range and search for cost savings and a lower volume demand impose serious constraints on Belter's own purchasing power with its suppliers. Hence, company profitability and competitiveness, coupled with the more general fluctuations in the level of economic activity in the country and the specific industry to which the company belongs, limit the strategic alternatives of their buyers. *Lyon Acier,* facing a fall in demand for their iron and steel products, have reduced their product range and cut back purchases by 10 per cent. They are now searching for new suppliers and cheaper prices in overseas supply markets.

(c) Technology The technological characteristics of the items bought and their application in the customer's system of manufacturing are represented by the cell position in the choice matrix from which the case studies have been chosen.

These technological factors are closely related to the market structure of the supply industry from which the items are being procured and collectively these impose boundary constraints on buying. This may be illustrated by referring, in turn, to purchasing by unit producers, mass producers, and process manufacturing firms.

Teximac and *Svefo* are, respectively, unit-producers of textile machinery and commercial vehicles. Purchasing of highly complex components, for subsequent unit or small-batch assembly, is characterized by the limitations to the number of suppliers who are perceived to possess the necessary technical capability to collaborate in the design and service of such important items. The discretion of buyers is constrained by the specifications drawn up by technical staff and both these customers have developed heavily dependent relationships with a very small number of specialized suppliers. The technology of mass production firms, such as *Sprinter* and *Ace Motors, is* reflected in highly standardized and routinized ordering systems. Purchasing is concerned with ensuring the security of supplies of raw materials and components to meet stringent delivery and quality control programmes. Dual sourcing in international markets is frequently encouraged to avoid over-dependence on a single supplier when output may be disrupted by labour disputes. In the process manufacturing industries, in which *Britapaints* and *Colorex* operate, the purchasing of raw materials is undertaken in international chemical supply markets where supplier relationships have to be handled in such a manner as to secure supplies by forward buying in times of high demand or bargaining for low prices in times of surplus. The supply markets are frequently dominated by small numbers of near-monopoly suppliers acting in collusion or

independently, because of their possession of national raw material resources. *Lyon Acier,* buying some of their commodities in world markets, which are subject to trade cycle fluctuations and supply cartels, meets these conditions by signing long-term contracts covering three to six years ahead.

(d) Organizational factors Finally, constraints on purchasing originate in the structure and stage of development of the organization of the buying company. The stages of internationalization through which companies pass from domestic to internationally orientated ones (Johanson and Wiedersheim-Paul, 1975) have important repercussions on purchasing. Companies moving into export markets have to make product policy decisions about whether they will standardize their products and market them in that form to foreign customers, or else to adapt them to suit different needs of individual foreign markets. These standardization or product differentiation strategies affect both the economies of scale in the purchasing of supplies, and also the extent of local national content of supplies bought by their foreign subsidiaries (Sorenson and Wiechman, 1975). Different organization structures are developed by international companies and, according to the degree of centralization and control exercised by the parent company, this governs the use of global or national suppliers by their subsidiaries at different stages of development from domestic to internationally orientated concerns (Davis *et al.,* 1974). These considerations are seen to apply to *Ace Motors* which is a subsidiary of an American company.

The constraints arising from the market, economic, technological, and organizational situation of the customer company have far-reaching repercussions on the purchasing objectives and strategies. We now turn to the analysis of the relationships with suppliers which act as stimuli for strategy formulation.

Analysis of Supplier Relationships

(a) Portfolio analysis The concept of a balanced portfolio of financial investments has been applied to a supplier's portfolio of customer relationships in the development of marketing strategies.' It is equally applicable to the customer's investments in supply sources. A portfolio analysis of the suppliers currently used, and also desired by a company, can be carried out using various criteria which constitute balance in a portfolio. A spread of suppliers across different countries reduced the risks of movements in currency exchange rates and inflation, as they affect the company's own cost structure and cash flow management. Having suppliers at different stages of development, or of varying sizes, is beneficial because each category of supplier requires a different level of resource commitment for effective interaction, and each may bring different types of benefits. *Sprinter* has now established seven suppliers in seven different countries instead of one domestic supplier. The Company maintains its bargaining power by multiple sourcing and uses suppliers to fulfil different purchasing objectives. One supplier serves as a source of technical innovation, one for non-standard items, another for low cost supply, etc. The suppliers of this item comprise a balanced

portfolio, and Sprinter also avoids over-dependence on any one foreign economy or currency.

The handling of the personal interaction with suppliers' staff imposes a burden upon the technical, production, and purchasing resources of a customer and choices have to be made concerning the number of close interactive relationships it is feasible to have simultaneously.

(b) *Supplier performance and marketing strategy analysis* A purchasing review of the important items bought, and the performance of the relevant suppliers, leads to response strategy formulation. Dissatisfaction with supplier performance is a common cause of the breakdown of source loyalty and the case studies provide evidence of the concern of buyers about supplier performance. Different response strategies are observable. *Antriebswerke is* unable to change suppliers in the short-term, even though it is far from satisfied, because of the lack of viable alternatives, but it plans to do so when circumstances permit. *Sprinter* encountered a crisis in supplier performance and broke off relationships with this supplier. Apart from specific episodes creating dissatisfaction, the supplier may fail to reach the buyer's objectives for the long-term atmosphere of trust and co-operation in a relationship, and this leads to appropriate purchasing strategies being implemented.

There is also a close interplay between the purchasing strategies of customers and the marketing strategies of suppliers. Neither party is fully aware of the other's strategy, but has to deduce this from behaviour in specific situations. Customers may react differently to a supplier's behaviour. This is illustrated by the different reaction of the various customers of *Mecamine,* a market leader of mining equipment, to Mecamine's strategy of making customers heavily dependent upon the superior features and innovativeness of the supplier's product and application services. The German customer has resisted Mecamine's attempt to engage in very close collaboration, involving free and full exchange of technical and commercial information, but the French and British customers have responded positively. The German customer continues to dual source, whereas the other two customers see greater benefits from single sourcing and gaining in technical expertise.

(c) *Purchasing power analysis* It was argued earlier that purchasing power varies over the product life-cycle and in different economic and supply market situations. Further scope for analysis of power is based upon the recognition of the relative size of customer and supplier and the proportion of the supplier's output bought by the customer. The theme on *Power and Dependence in Industrial Markets* examines other bases of inter-organizational power. Purchasing strategies can be formulated in the knowledge of the relative importance or strength of the customer in its relationships with suppliers. *Svefo* have been unable to exert any influence upon their UK supplier to innovate and improve the technical characteristics of the components being sold. This situation of perceived impotence in the relationship is being met by Svefo's temporary use of an alternative supplier, thus using their reward power. *Britapaints* recognize their relative

weakness in their relationship with the German supplier of resins, and so collaborate closely to gain some technical benefits to offset the higher prices paid. *Colorex,* on the other hand, choose smaller suppliers from whom they can obtain lower prices by a more brutal exercise of buying power.

Customer-supplier power derives from expertness and possession of technical knowledge, and suppliers are often used as an extension of a customer's own technical skills. Some of *Autostart's* customers, who have their own wholly owned suppliers, have recognized that their bargaining power has changed due to the technical leadership of independent suppliers, such as Autostart, and are no longer in a position to resist their market overtures. Buyers improve their knowledge prior to bargaining with suppliers by undertaking an extensive analysis of the costs of manufacturing various items, in order to negotiate with suppliers on the basis of target prices, running costs, and vendor rating systems.

PURCHASING OBJECTIVES AND STRATEGIES

In addition to the fundamental purchasing objectives which reflect the need to choose the supplier having the most economic offer, in terms of total purchasing cost, commensurate with meeting the criteria of technical, delivery, and quantity specifications, there are objectives of a more strategic nature. These have been identified as assuring long range sources of supply, protecting the cost structure of the business through the control of suppliers, and maintaining good relationships with suppliers (Kieser, 1976). To these primary objectives may be added others, which emphasize the interactionist approach to buying and selling industrial goods. These are the achievement of a balanced portfolio of supplier relationships, the accomplishment of an effective matching up with suppliers possessing the required interaction characteristics and, finally, the control over the intensity of interaction.

The number of items bought by a company, together with the number of suppliers for each item, determines the number of supplier relationships which must be managed. Some purchasing objectives and strategies for dealing with these relationships will be generally applicable to the whole range of purchased items and will be those which reflect overall company approaches to the selection and handling of suppliers. For example, the encouragement of trust, co-operation, and information disclosure, may be a general strategy, as also may be the willingness to pay more than the minimum price, to gain security of supplies, and high quality. Purchasing objectives and strategies of this nature will be more prominent in companies which have a centralized organizational structure. However, because of the large number of items bought by some companies and especially where decentralized purchasing is in operation, many purchasing objectives and strategies will be specific to the item. The supply market situation which prevails and the activities of suppliers will be of overriding consideration in such specific strategies and objectives.

Various purchasing strategies have been identified in previous research into the buying of industrial goods. The work of Melin (1977) and Farmer (1978) are of particular interest. Some purchasing strategies are concerned with the pursuit of

long-term objectives (such as ensuring future supplies and achieving collaboration with suppliers) whilst others are more relevant to specific short-term objectives (such as cost reduction and improving a supplier relationship). There is an interplay between the planning of the longer-term strategic and shorter-term operational purchasing activities.

These strategies can be classified according to the type of objective which they are intended to achieve. In their choice of the appropriate strategies, buyers will be influenced by the benefits to be gained and their perceptions of the risk involved, their motivation for work simplification and their recognition of the inter-dependence between suppliers and customers.

Strategies for Achieving Security of Supplies

This can be achieved by strategies such as *`Long-Term Contracts'* or by *`Multiple Sourcing'* to stabilize supplies and prices over time or to avoid over-dependence on a single source of supply. There is no requirement for close collaboration with suppliers in implementing such strategies. *Lyon Acier* engage in long-term commodity contracts with certain suppliers and many of the purchasing and marketing case studies provide evidence of multiple sourcing by customers. Multiple sourcing reduces the customer's dependence on a supplier by having more than one supplier for a specific item and exercising buying power by allocating and changing the amount ordered from any supplier. Alternatively, different suppliers may be chosen to supply different product variations within a category of purchased items, to prevent the whole technological development of that category being in the hands of a single supplier. *Ace Motors* prefers dual sourcing for individual components for supply security reasons. Implementing this strategy is difficult because of the Company's relatively small size in the car industry and the high cost of double tooling. The use of several foreign suppliers is sometimes feasible, convenient, and does not involve high tool costs in those situations where there is commonality of parts between Ace and its European sister companies. Past problems of disruption of supplies from UK sources has led to a conscious policy to import components. Foreign suppliers are obliged to establish security stocks in the UK and, as a move towards long-term security of supplies, Ace has selected some companies as *Development Suppliers* from whom they plan to buy increasing quantities in the future. Relationships with such suppliers are considered important and disproportionately high buying resources are allocated to these relationships.

Farmer identifies three additional strategies which are relevant to assuring long-term supplies: *Vertical Integration* by the acquisition of one's supplier; *Collaborative Dealing* through voluntary close relationships with suppliers and, finally, the exercise of economic and technical purchasing power by what Blois (1972) refers to as *Vertical Quasi-Interaction.* An example of vertical integration can be found in the *Autostart* case where some European customers own their specialist suppliers of commercial vehicle components. This is now causing problems due to these in-house suppliers falling behind independent suppliers in technical development.

Strategies for Matching with Appropriate Suppliers

Just as it has been argued that suppliers should seek customers having the desired characteristics for establishing long-term `mating relationships', so the same concept often applies to the choice of suppliers, (Guillet de Montheux, 1975). There may be more than one supplier who can meet the purchasing specification and cost limits and the discretion which buyers may exercise in satisfying these criteria may be demonstrated in strategies which relate to:

- the preference for national or foreign suppliers
- the use of single or multiple sources of supply
- the type of suppliers to be used, in terms of size, reputation and expertise
- the manner in which purchasing power is to be achieved and exercised
- the quality of the relationships to be developed
- the extent of interaction through personal contacts, information exchange, and the adaptations to be made in financial, technical, and administrative matters.

These discretionary areas cover strategies for facilitating interaction, by choosing suppliers and also strategies for developing the required interactive relationships with suppliers. In this section, we shall concentrate on the former group of strategies.

A preference for domestic suppliers is a quite common occurrence, but the explanations are quite diverse; nationalism, convenience, cultural compatibility, or compliance with government pressures. Selection between alternative foreign supply sources is also based upon a preference for, or an avoidance of, suppliers from certain countries because of the social distance involved, through differences in language or operating procedures. As a result of *Teximac's* purchases of components in Germany, their buyers and engineers have developed a very strong pro-German bias to their purchasing. Just as in export marketing, where companies first learn from dealing with companies in countries which are socially and geographically close, so too in international sourcing will customers gain in experience from purchasing in one country and develop their procedures and undertakings for extending this to other countries.

Apart from the country cultural matching referred to above, there are purchasing strategies for choosing suppliers according to their size, or because of their technical expertise, or access to commercial information. Effective interaction does not mean that customers choose suppliers of a similar size to themselves to achieve compatibility of organization structures or operating procedures. Although this is practised by some customers, others, such as *Colorex,* choose suppliers so that they can achieve domination over them by progressively making the supplier over-dependent upon this customer's orders. Preferential treatment in delivery priorities and price concessions are also obtained. We shall term this strategy *Draw in and Dominate.*

Strategies aimed at developing an extensive exchange of technical information with suppliers are identified by Melin (1977). One strategy, termed *Follow-my-Leader,* involves purchasing from the leading supplier to obtain early knowledge

of technical developments. The other strategy, *Open House,* encourages several suppliers to have full access to the customer's factory to solve his problems and to develop products appropriate to the customer's needs. Suppliers are used as an extension of the customer's technical skills and joint product development arises, to the benefit of both parties. The *Britapaints* company adopts a follow-my-leader strategy with its German suppliers, and *Teximac* with its three component suppliers, seems to adopt an open-house strategy.

Two further strategies are primarily concerned with developing a sensitive source of commercial information about supply markets (Melin, 1977). The first of these, *Market Orientation,* occurs through continuous monitoring of different supply markets by close collaboration with several suppliers. The second strategy,l *Environmental Anchoring,* involves intensive commercial interaction with one important supplier. It is possible to see how shipyard customers *of Unifix* and *Mekanik and Motor* can use these supplier's sales agents as vital sources of competitor intelligence, since these people are in regular contact with other shipyards and owners.

Strategies for Handling Relationships and Changing the Balance of Power

Whether a buyer chooses a supplier according to a deliberate matching approach as referred to above, or else is faced with handling a supply relationship, not of his ideal choice, the consequential relationship can be managed and nurtured to achieve satisfactory results. The various customer–supplier relationships can be considered to be in any one of the stages depicted in the theme `Long-lasting Relationships'. Some purchasing strategies are concerned with progressing the more important relationships from one stage to another, until close collaboration and full interaction is achieved; other strategies are concerned with maintaining the status quo or even extricating the customer from a relationship which is not proceeding satisfactorily. There will also be many relationships where resource limitations on the part of the customer company, or work simplification proce- dures on the part of the individual buyer, prevent the necessary attention being given to derive the maximum benefit from dealing with a supplier.

Interaction strategies for purchasing involve the use of any or all of the elements of interaction referred to in the theoretical model in Chapter 2. For example, attention may be given to the extent of `give and take' in technical co-operation. This will be determined by the amount of technical information exchanged, or the customer's involvement in joint product development work with suppliers, or by the amount of adaptations demanded or conceded. Some inter-action strategies will focus on the degree of formalization of procedures, protocols, and systems for maintaining personal contacts with supplier's personnel. Other strategies will be primarily concerned with the creation of the general long-term `atmosphere' of trust, co-operation, and mutual dependence surrounding supplier relationships or in the manner of conduct of specific negotiations which affect the social quality of certain relationships. In relationships between customers and suppliers in industrial markets, person-to-person contacts are the

usual means for achieving information exchange, adaptations, etc., between the two organizations.

Many instances arise in the case studies in which strategies adopted can be attributable to the circumstances prevailing in specific relationships between the customer and individual suppliers. For instance, as a consequence of the customer's growing dissatisfaction with a supplier's performance, pressure is exerted to influence a supplier's behaviour and, if unsuccessful, to change the situation by other means. Some customers feel impotent in the face of superior supplier power or have allowed complacency to set in. This frequently means changing some aspect of the relationship and, where possible, regaining some initiative through the exercise of whatever power is available. Such strategies, which are in pursuit of greater flexibility and freedom of action, occur through the withholding of information or reducing the volume of business placed with a supplier, can be termed *Altering the Elements of Interaction.* Dual sourcing is again an appropriate strategy in many such situations. These responses to situations may also affect the long-term `atmosphere' of the relationship.

Interesting contrasts occur in purchasing strategy concerned with the exercise of power by companies. Some seek to dominate suppliers, whilst others of similar power prefer to collaborate closely with suppliers in an atmosphere of mutual trust, confidence, and loyalty. The former approach involves gaining price concessions and adaptations by bluff or by the withdrawal of orders. Such relationships are often handled through a clearly defined personal contact pattern where price negotiations are conducted by a senior buyer. In the close collaboration situation termed *Cooperative Agreement* strategy by Melin (1977), there are extensive contacts and strong bonds of interpersonal relationships between staff of customers and supplier companies. However, this may lead to lack of commercial objectivity and excessive source loyalty, as was apparent in the relationship which formerly existed between *Svefo* and its UK supplier.

Melin's research pointed to another purchasing strategy related to the general `atmosphere' and social quality of supplier relationships which he called *Social Responsibility.* Customers deliberately avoid exploiting suppliers for one-sided gain and fully recognize that suppliers must earn their living. Whilst this may not be always the case with *Salka,* this company shows a willingness and capability to interact very extensively with suppliers and a spirit of close collaboration and mutual respect permeates several of its supplier relationships. With British suppliers, a formalized organization structure has been established to develop and handle inter-functional contacts between supplier and customer and a procedure has been set up for resolving conflicts. In a similar manner, Salka co-operates intimately and personally with a Swedish supplier and this has facilitated adaptations in production schedules and collaboration on design and development.

Strategies for Cost Savings and Stimulating Competition

The pressures to achieve cost savings are particularly strong at the latter stages of the customer's product life-cycle or when the company is passing through a time

of economic stringency, when sales or profit margins fall. Farmer (1978), identified several purchasing strategies aimed directly or indirectly at achieving greater cost efficiency in purchasing. *Logistic Strategies* are primarily concerned with reducing costs in the supply chain by eliminating too many intermediaries and obtaining greater efficiency in transport and stockholding activities. The desire of customers to have direct technical and commercial contacts with suppliers affects the marketing channel strategies of suppliers using agents and sales subsidiaries. *Salka* deal directly with their UK suppliers of components, in a situation where the latter has no Swedish sales representatives. But, in buying stainless steel sheet from Germany, they by-pass the supplier's wholesaler in Sweden and deal directly with the German factory. The need for technical inter-action between Salka and their suppliers is a major factor influencing channel choice, but cost considerations may also affect their not using the Swedish wholesaler.

Cost savings and increased competition are achievable by the strategy of *New Supplier Development.* The use of new foreign suppliers (sometimes to assist buyers' bargaining power with domestic suppliers) is frequently resorted to, as may be deduced from several of the marketing cases where new customers' business has been penetrated.

Finally, *Make or Buy* strategic alternatives are evaluated by buyers. *Teximac is* considering the possibility both of encouraging a new UK supplier to make components, or making the item themselves, due to increasing over-dependence on the German supplier.

CONCLUSIONS

Purchasing is at the interface with the supply environment and is the focal point of interaction with suppliers. It plays an important role in managing the two-way exchange of technical and commercial information between the participating companies and functional groups. Many purchasing strategies are related to the control of different elements of interaction and the way in which information exchange, adaptations and quality of inter-personal contact patterns are handled has important bearing upon the longer-term atmosphere within which purchasing and marketing episodes occur.

It has been argued that purchasing strategies are related to two distinct market environments; firstly, the market in which the customer company operates and from which the marketing strategies are derived. This, in turn, constrains and influences the company's subsequent purchasing strategies. Secondly, the supply market from which the company buys its inputs of raw materials, components, and capital equipment. The discretion of buyers themselves, in their choice of supplier may be severely restricted by the involvement of other interested parties in the organization, according to the technical complexity and essentiality of the purchased item, but they have a great deal of discretion in the choice of strategies for the handling of supplier relationships and for achieving effective interaction with suppliers. However, the particular circumstances through which the

customer company is passing in its progress towards internationalization, or due to its own profitability, imposes further organizational and financial limitations on the freedom of choice of buyers and the way in which cost savings dominate any relationship with suppliers.

Many purchasing strategies arise from the specific situation caused by supplier performance or its behaviour in the relationship with the customer, and they find their expression in the attempts by the buyer to achieve or re-establish his purchasing power. Other strategies show that buyers recognize that there is a great deal of mutual dependence (particularly in technical matters) between the two organizations. This stimulates close collaboration and joint adaptation leading to the development of long lasting relationships and loyalty to each other.

In considering the three main aspects of strategy formulation, analysis, objectives, and strategic choices, it has been suggested that a better understanding of the different purchasing strategies is gained by relating them to certain categories of objectives which they are designed to achieve.

Whilst a conceptual difference between strategies and operational purchasing activities may be made, nevertheless, they are often inseparable, as is the distinction between the level in the organization at which strategy is formulated or implemented. This is particularly pertinent to purchasing strategy formulation because of the large number and range of products to be bought, leading to the complex structure of supplier relationships to be planned and handled.

The various purchasing strategies which a company will have for each of its diverse range of purchased items points to the need for management to co-ordinate and reconcile these different strategies. The strategies are often inter-related and the `atmosphere' which is created by pursuing one purchasing strategy in a certain supply market may well have repercussions on other relationships. Several strategies can be pursued simultaneously for the same item with different suppliers and also for different items. However, not all strategies are compatible within one company and they may well have conflicting resource implications in effectively managing the portfolio of relationships.

NOTES

1. See, for example: Webster (1965), Pettigrew (1975), Cunningham and White (1973-74), and Brand (1972).
2. See the theme entitled *An Interaction Approach to Marketing Strategies.*

SECTION 5.4 INTERACTION ENVIRONMENTS

Each industrial company operates within a specific environment. For example, a steel firm works within a very special and institutionalized environment and there are many inter-dependent factors that restrict its freedom of action. The company is a part of a larger social system. This was recognized by a marketing manager of a paper and pulp company studied in the research project who expressed it in the following way: `To work as a marketer in our particular market is like balancing

on a knife-edge. On one side I am criticized by my own company if I do not act strongly enough and on the other side I am criticized by the rest of the industry if I disturb the market'. The environment determines and influences the individual inter-company and inter-personal relationships in a very distinct way. In certain circumstances it drives companies together and in other cases it puts up barriers. The latter is the focus of a theme that is presented in this section. In our earlier treatment of the interaction environments these were classified in relation to their degree of heterogeneity and dynamism, and were summarized in Figure 5.3. The barriers that will be discussed here can be seen as factors that constitute heterogeneity. The theme discusses factors related to the parties and also to the processes, but in this situation these can be seen as a part of the environment because they influence the alternatives which a certain company perceives to be open to it.

In the theme, several factors counteracting or even preventing interaction are identified and discussed. The arguments made, therefore, can be seen as a reverse treatment of those situations when interaction actually occurs or will take place.

BARRIERS TO ORGANIZATIONAL INTERACTION

Malcolm T. Cunningham

INTRODUCTION

Interaction between suppliers and customers occurs when both parties recognize their mutual inter-dependence and are interested in each other's resources (Melin, 1977). The need to interact arises from a desire to increase the efficiency of business transactions and communications and to facilitate production scheduling and distribution. But in many markets interaction allows the companies to make better use of each other's special technological expertise, and has the added advantage of leading to better control of the other party's activities. It is argued that these needs are satisfied by the development of a close working relationship. Most industrial markets are, in fact, characterized by the existence of stable and long lasting relationships. Yet interaction does not necessarily lead to co-operation; it can lead to conflict, and a barrier to interaction can be identified where one company fears the unreasonable exercise of power by another. A relationship at `arm's length' may be preferred as an alternative to a close, dependent relationship.

The interaction model identifies the elements and processes of interaction between suppliers and customers in which information is exchanged, adaptations to products and systems occurs and social exchange is demonstrated by the establishment of trust, confidence, and personal friendships. Inter-organizational relationships are complex, variegated, multi-level, and dynamic phenomena. This is because interaction is taking place, not only between companies in different stages of economic and technological development, but also between groups of

functional specialists or individuals performing different roles and having changing objectives. It would be surprising, therefore, if the interactions did not vary in intensity, style, and scope from one relationship to another and also over time. So, interaction may include at one extreme an extensive reciprocal exchange of resources within a framework of trust and mutual respect and, at the other extreme, a narrow minimum transfer of resources on a purely commercial basis, or even in an atmosphere of intense hostility (Benson, 1975). Equilibrium and stability in a relationship occurs when the organizations are engaged in highly co-operative interactions based on consensus, and acceptance of each other's objectives and styles of approach. Many such instances are to be found in industrial markets where source loyalty and customer loyalty have prevailed through times of difficulty and minor crises.

It has been argued that organizations will interact with their counterparts if the interactions are important to them and the more important, the more frequent will be the interactions (Hall, 1978). Nevertheless, this perception by buyers or sellers of their need to interact, because of their economic or technical dependence upon each other, has to overcome barriers due to high costs and resource limitations, which inhibit any interaction being initiated in the first place. Even when a business relationship is commenced, it does not necessarily follow an orderly pattern of progressive development.' This is because of the existence of various barriers arising from technical or organizational incompatibility between the two firms, or social distance in language, culture, and style of approach. Interaction barriers also exist because of the unsatisfactory performance of one partner, which emerges as a result of the first stage of a customer–supplier relationship. Under some circumstances the relationship may be virtually still-born and interaction would be severely limited or terminated. Under other circumstances, close inter-organizational personal contacts may help resolve the crisis and such barriers are surmountable. Progress in a relationship should occur where there is agreement among the participants in an organization (such as a customer company); firstly, regarding the true role of a supplier, secondly, where they also agree upon how the supplier's performance should be assessed and, finally, on whether the supplier is judged to perform to the customer's expectations. If so, then the patterns of collaboration are established, so that a mutually satisfactory relationship and effective interaction can take place involving the organizations' participants. Obviously, barriers to effective interaction arise where these criteria are not satisfied.

What, then, are the characteristics of those situations in industrial markets in which interaction barriers are so formidable as to inhibit the creation of comprehensive interaction between suppliers and customers? The case studies presented here should shed light on this question. However, it is important to recognize that the research study reported here was designed in such a way that data was collected from companies where there was evidence of an existing relationship between the customer and supplier. Investigations of unimportant relationships were not pursued, nor were those relating to markets where the respondent company had not successfully bought from or sold to one of the five European

countries studied. Furthermore, almost all of the case studies presented here were selected in such a way as to omit discussion of buyer–seller relationships where data was sparse or where no topic of special interest was detected. This means that there is much less research evidence in these case studies than would be desired about barriers to interaction which many companies have either not fully appreciated or which have proved insurmountable. What is of particular interest is that the data will illustrate where some barriers have been encountered and over-come in some way or another.

It is proposed that the barriers to inter-organizational interaction can be closely related to the groups of variables which are identified in the interaction model. There are environmental barriers, arising from the structure of industrial markets and from the economic and cultural features of specific countries. Barriers also exist due to the characteristics of the participating companies, as exemplified in a mismatch of their respective sizes, technological capabilities, and organizational structures. Furthermore, individual members of the two organizations will often create barriers to interaction arising from their personal attitudes to or past experience of dealing with particular companies or with those from a certain foreign country. Direct interaction may be restricted, due to the use of inappropriate selling and distribution channels. Finally, barriers will be in evidence because of individual `episodes' in the relationship between two firms, or due to the pervasive `atmosphere', or an unfavourable reputation, surrounding a company's management of its relationships with suppliers or customers. This may be manifest in the company's lack of competence or in an inadequate provision of information to the other company. It also can be seen in a company's inflexibility in adaptations or in limiting the development of close social and personal contacts with suppliers or customers.

Given the above structure to an analysis of the different barriers to interaction, these barriers could also be viewed as appearing at various stages in the development of close and long lasting relationships. For example, some are of the nature of market or country entry barriers, which apply where a customer or supplier is contemplating sourcing from or selling to that territory. Other `entry' barriers are more specific to the actual companies who are potential parties to a relationship and arise from an incompatibility of company characteristics, objectives, or strategies. They often prevent specific customer–supplier relationships from becoming established. Finally, there are barriers which become particularly pertinent to the subsequent development and long-term maintenance of a relationship once started. These obstacles are to be found in the conflicts and inadequacies of the relationship because of the behaviour or performance of one party.

ENVIRONMENTAL BARRIERS

Many factors, which comprise the total economic and market environment of a country, are perceived as risk barriers by companies contemplating entry into a country for supplies or sales. These barriers may inhibit initial approaches to and

interaction with any or all potential suppliers or customers. They also affect the level of investment in sales, distribution service facilities, and stockholdings which a company is willing to make in order to interact with counterpart companies in that market. Factors such as political instability, currency fluctuations and inflation rates, together with unpredictable industrial disputes, government interference in free trade etc., are some of these environmental factors affecting interaction.' The *Unifix* case illustrates how the marine and power generation industries in different European countries restrict entry into their domestic markets by foreign manufacturers. A combination of strong nationalism on the part of state-owned companies, or the unofficial protection of domestic supply sources through financial subsidies, are seen by suppliers to be formidable entry barriers to these markets. These barriers can only be circumvented in certain situations by the supplier persuading end-user shipowners, or Third World users of the power plant, to specify a foreign supplier's products to the ship-builder or main plant contractor in the European country concerned. *Britmet* find that there are barriers to free trade with Germany due to import restrictions, but nevertheless are able to sell special steels there within the import quota limitations.

MARKET STRUCTURAL BARRIERS

The structure of an industrial sales or supply market often constitutes some barriers to entry for any new-comer. Any interaction between two organizations takes place within a complex network of other inter-organizational relationships. The industry structure usually prescribes the number and economic importance of the organizational links and interactions which companies in that industry can have with their suppliers and customers (Blois, 1972). Other factors of a historical nature relating to cartels, co-operative agreements, and financial links between companies obviously prevail, as is evidenced in the case of the German steel company *Stahlwerke.* In a highly concentrated industry, there are a small number of very important and resource intensive buyer–seller relationships already in existence, which constitute entry barriers for any newcomers. This is understand-able, considering the high costs which are incurred if companies change their suppliers or customers. Long lasting relationships may have involved close technical collaboration, in which compatible product offerings and administrative systems have been developed to suit both companies. The costs of changing relation-ships have been classified as search and evaluation costs, internal system costs, and technological adaptation costs. Individuals will also have developed social links and close personal contacts with individuals in counterpart companies which they are reluctant or unwilling to break. For example, the European commercial vehicle industry is highly concentrated and long lasting relationships are found to exist between vehicle manufacturers and large international suppliers of highly complex components. These are described in the *Svefo* purchasing case and in the *Autostart* marketing case. Many of these relationships are by no means ideal and, for example, Svefo is concerned that some of their relationships have reached a static state in which there are barriers to further progress, due to the lack of

technical development by their Swedish and British suppliers. Barriers to entry by competitive suppliers will be partially lifted by Svefo to stimulate improvements by current suppliers.

COST—BENEFIT BARRIERS

Interaction is unlikely to occur where the sales and profit benefits potentially available from a new customer, or the cost savings accruing from dealing with a new supplier, fail to offset the high level of resource costs involved in establishing (and subsequently maintaining) an interactive relationship. *Britmet* marketing steel to Italy has decided that the different sales potentials in German, Swedish, French, and Italian markets requires a flexible approach to investing selling resources in each country. The economically erratic Italian market, with its additional risks of political instability and exchange rate fluctuations, has caused Britmet to continue to use a low cost sales agent rather than establish a large sales office employing local national salesmen, as applies in the more attractive and stable German market. *Unifix* see little return for investing resources in the Swedish power plant market. They believe that their Swedish client lacks commitment to buy from Unifix and consider that the amount of technical collaboration necessary to make the relationship progress is not likely to be matched by sales potential in Sweden.

In those companies which have large numbers of suppliers for a wide variety of purchased items, or many customers and export markets to which they sell, a problem of resource management arises. This is recognized by customers and suppliers alike, who practice some form of portfolio management (either explicitly or intuitively). This places constraints upon the number of high involvement relationships which a company can effectively manage.' Whilst some companies may rationalize the range of their suppliers and customers, others will continue to sell to or buy from a large number of companies, but will restrict the intensity of some interactive relationships in order to concentrate upon those relationships which produce beneficial results. This has been referred to as the limitation and handling problem, (Hakansson and Ostberg, 1975). The consequence of implementing these company portfolio policies is that it then creates a barrier to extensive and effective interaction, as perceived by those companies which are excluded from the small number of close and high involvement relationships.

DYNAMIC BARRIERS

Some barriers to interaction between a customer and a supplier occur almost by chance whilst others are due to the imperfection of the market. Lack of knowledge or imperfect information about the existence and capabilities of a prospective supplier or customer are not uncommon. Temporary or cyclical fluctuations in the industry may make interaction between two companies unpropitious at a certain time. An examination of some of the case studies showing the origins of supplier—customer relationships testifies to an element of luck or chance having arisen. Companies themselves have diverse historical origins and are of different

sizes and skills. They are also at different stages of growth and organizational development at any one time in a changing technological, societal, and economic environment. Hence the scope for interaction between a supplier and a customer company depends upon the buying and selling objectives of these companies coinciding and also upon them perceiving each other as an appropriate partner for interaction. These barriers may be of only a transitory nature, because when one company wanted a partner the other was not prepared or available. Under such circumstances interaction fails to take place because the companies concerned may then invest their resources in establishing relationships with other partners instead. There is obviously a close analogy here between inter-organizational relationships and the selection of human partners for marriage or close friend-ships. This analogy is recognized by other researchers (Guillet de Monthoux, 1975) who see certain barriers to interaction as not being due to explicit policy decisions of non-co-operation, but arising incrementally by a large number of small decisions on even the absence of any decisions.

SOCIAL AND CULTURAL BARRIERS

There are varying degrees of social and cultural `distance' between certain countries; and this affects the interaction which readily occurs between customer and supplier companies from those countries. Social exchange, and inter-organizational communications, which involve the transfer of values, attitudes and knowledge, are the more obvious elements of interaction between companies affected by social and cultural barriers. Nationalism in foreign countries is seen to be a particularly important factor by several British companies trading with France and Germany. *Britmet,* for example, finds the French market to be the most difficult one in Europe to penetrate, even though it has set up a sales office in France staffed by French nationals. The company has not been successful in establishing close relationships with a French customer, even though some sales are made. Therefore, it should not be inferred from the interaction model, outlined in Chapter 3, that full social exchange is a natural consequence or prerequisite for interaction between suppliers and customers. There is evidence from our studies of the general attitudes of European marketing and purchasing executives, that business is still conducted between companies across national boundaries in the absence of confidence, trust, and even liking between the interacting parties.' The price advantage, or monopoly of technical expertise by one company, may cause a customer company to buy from a certain supplier in the absence of any social affinity and suppliers may not like dealing with certain of their customers. These relationships may not progress to a level of satisfaction or state of performance which suits both parties, however, and there are underlying social barriers which prevent full and comprehensive interaction. *Antriebswerke AG* Company, buying from the UK, is faced with one supplier with whom the relationship is unsatisfactory, but Antriebswerke feels obliged, in the short-term, to continue to buy from this supplier because of the latter's monopoly of technical expertise in the design and manufacture of these goods.

Social and cultural differences also prevent a relationship from even starting, because of the different styles of individual and corporate behaviour. These differences arise in conflicting and incompatible protocols and procedures for buying and selling, particularly in the manner in which bargaining and negotiating is conducted. Additionally, differences in ethical and moral values between individuals involved in a prospective relationship may either prevent effective interaction, or else impose a severe deterrent to its development. Furthermore, there are situations in which individual buyers, salesmen, or technical staff lack the necessary social skills and motivation to be able to establish close working relationships and to interact effectively with their counterparts in the other company.

Finally, language barriers affect the interaction between companies. Where it is necessary for communications to be in a foreign language and the members of the companies are not fluent in its use, either for commercial or technical matters, this inhibits information exchange and the development of close personal relationships. For instance, language barriers are seen to be a problem for the Swedish company *Salka* when dealing with a French supplier, and it finds that its contacts there are much more restricted than with German or British suppliers.

The French *Auto Equipement* case study shows that one of the major factors involved in selecting a supplier from whom to buy, and with whom to interact, is perceived risk. Although this risk barrier consists of technical, financial, and organizational aspects, the economic–cultural barrier to buying from a foreign supplier proved to be quite significant and nationalism prevailed in the decision to use a French supplier.

BARRIERS IN SELLING AND DISTRIBUTION CHANNELS

Two types of channel barriers to full and direct interaction between manufacturing companies can readily be identified. First, those caused by the sales and distribution channel used by suppliers and, second, the use of centralized buying units, acting on behalf of individual companies.

Generally, the longer the chain of distribution through successive intermediaries, the less likely is the direct interaction between the manufacturing companies producing and utilizing the product and its supportive services. The employment of sales agents and distributors is often determined by the high costs of serving geographically dispersed customers, or because of the lack of familiarity of the supplier with the special characteristics of foreign markets, or because of such considerations as the agent's suitability for handling the sales and service of a diverse range of technically complex products. This extra link in the communication and distribution network has a marked effect upon the pattern, frequency, and level of inter-organizational personal contacts between suppliers and customers. The *Autostart* case analyses the contacts between the company and several domestic and foreign customers, where direct contact occurs in the home market, but a mixed pattern of indirect and direct contacts are used in Sweden and France. Agents are not found to be a barrier by *Unifix* in marketing

to foreign ship-builders and shipowners, but their role is primarily an intelligence one and the direct interaction between supplier and customer staff then follows, once a potential customer has been identified. *Britmet* have overcome geographical and cultural distance barriers by placing local national salesmen in several European territories. *Salka* have satisfactorily by-passed the German supplier's Swedish wholesaler and can buy direct from the factory. *Sprinter's* buyers deal directly with suppliers in several different countries (although contacts with the Eastern European supplier are co-ordinated by the appropriate State organization). *Teximac* interact both with the German suppliers' UK sales representatives and with the German factories. The purchasing power of the customer is the factor which enables buyers and engineers to overcome interaction barriers in the selling and distribution channel.

BARRIERS DUE TO THE INCOMPATIBILITY AND MISMATCH BETWEEN COMPANIES

It is appropriate here to recall that interaction occurs when the parties are interested in each other's resources. Thus, if a customer is seeking to utilize a supplier's technical expertise in the design and manufacture of a product, inter-action and collaboration is likely. Similarly, where the volume and value of trade between two parties is high and close co-ordination of production and transport schedules is desirable, then interaction again occurs.

The technical characteristics of a product, and the applications to which it is put, have an important bearing on the extent of technical interaction between a buyer and seller company. There may be very little requirement for close collaboration where the product is standardized, well established, or is technically simple. Purely commercial contacts between the two companies may be all that are required and any incidental technical information can be successfully communicated in an impersonal and unidirectional manner, through the supplier's catalogues. The Lyon Acier purchasing case exemplifies how the relatively low technology of the raw materials being purchased precludes a need for a high degree of interaction with suppliers. For example, the purchase of scrap iron from a vast number of suppliers does not give rise to any social or technical information exchange. Even when buying petroleum coke from a few large foreign suppliers, there are virtually no personal contacts with suppliers and Lyon Acier's relatively small volume requirements do not stimulate the supplier to seek much interaction with Lyon Acier.

We turn now from a consideration of the effect which the technical complexity of a product per se has upon interaction to an examination of the incompatibility of supplier and customer technology as a barrier to interaction.

Technical Incompatibility

Technological barriers to interaction may occur where the supplier and customer are technically incompatible. A customer may be unable to make effective use of a

supplier's technical expertise, or may make such excessive demands upon the supplier's technical resources in design, service, maintenance, etc., as to cause the supplier to withdraw from close collaboration, and try to limit the interaction to a more commercial basis. Some signs of increasing technical incompatibility are in evidence between *Svefo* and their British supplier of crankshafts. A widening gap between the two companies is emerging due to the increasing technical requirements of the customer and the complacency of their supplier. There are also technical problems in the relationship between *Britmet* and its French customer, which is perceived to have its origins in the rigidity of the customer and its insular attitude to international material specifications. Both instances show that the incompatibility is one of degree and is capable of being overcome by investment and innovation by the supplier to Svefo and by adaptations on the part of one or both parties in the Britmet case. There is a cost associated with this move to achieve compatibility and to facilitate greater interaction.

The Italian supplier of special raw materials, *Siderex,* found that there were technical barriers to interaction when it attempted to export to Germany. The high technical requirements which German customers demanded could have pre-vented relationships from being developed. These technical barriers placed great demands upon Siderex's problem solving, quality control, and production technology ability and resources. Fortunately, Siderex was able to adapt to meet the market requirements and has been successful in penetrating the German market.

Organizational Incompat[i]bility

Occasions exist in which one party to the relationship is unable to establish contact with the person or functional group in the counterpart company at a level in the organization which he considers appropriate. This may be a matter of status mismatch or because access to the decision-maker is not encouraged. Buyers often seek to establish contact with suppliers' executives, at least at their own level of seniority, and similarly, salesmen or engineers like to move their contacts to higher levels in the counterpart organization, in order to influence buying decisions.

An interesting pattern of supplier–customer interactions is apparent in the *Autostart* case. Interaction with some new automotive customers is deliberately restrained to control its share of the customer's business, because of fears of retaliation by the major competitor. Penetration is limited and contacts confined to selected buyers and engineers within specified product divisions. This is a self-imposed barrier created by Autostart. There is evidence of another barrier to interaction with the French customer due to a serious mismatch of status levels and language skills between the UK export salesman and the high level decision-makers in the large French automotive manufacturer. This barrier would appear capable of breaking down if Autostart can diagnose its cause and make the necessary changes in the type, number, and level of export staff dealing with France. Where one party, particularly the one in the position of greater bargaining power, is unable to achieve this status match to his own satisfaction, then he may

deliberately limit the amount of interaction taking place. This mismatch can arise from policy decisions of the company or by individual decision of the person concerned. Whilst some companies may operate an `Open House' strategy for dealing with suppliers,' others seek to limit access to their organizational members by channelling contacts and communications through some nominated person. For example, *Antriebsw?rke's* technical staff are unable to gain access to the technical staff in one of their UK supplier companies because the buyer acts as a `gatekeeper' in handling customer relationships.

Organizational incompatibility between suppliers and customers is particularly well illustrated in the *Siderex* case study. The Italian supplier encountered organizational barriers in its attempts to penetrate the French and British markets. French customers made such demands upon Siderex's commercial departments in handling contracts and responding to customer's information needs that the supplier had to make major changes in its organization. One British customer had a bureaucratic organization, as perceived by Siderex, and required the supplier to conform to its elaborate administrative procedures. Again substantial organizational adaptations were required on the part of Siderex.

Incompatibility of Objectives

The attempts by a customer to obtain unreasonably high price concessions from a supplier, due to the exercise of buying power, or arising from a specific economic situation of over capacity in the industry, may generate a long lasting `atmosphere' of hostility in the relationship, which limits full interaction and free exchange of information on other occasions. The use by some customers of multiple supply sources for an item has the effect of making the customer–supplier relationship non-exclusive and this limits the extent of close and confidential co-operation on technical development. There is an interesting contrast in the *Sud Composants* case between the exclusive, dependent relationship which the company has achieved with its German customer, and the non-exclusive relationship with its Italian customer, where the latter company uses multiple sources of supply.

Incompatibility between Expectations and Performance

Interaction at the early stage of a relationship can cause one party to suspect the real commitment or competence of the other. There is evidence that several companies engaged in international marketing and purchasing are perceived by their customers or suppliers as lacking understanding of how foreign firms operate, and who also seem unable or unwilling to demonstrate flexibility and innovativeness in conforming to the other's needs (Turnbull and Cunningham, 1980). This is partly due to cultural and language barriers, referred to earlier, but also because of lack of technical and commercial competence in the opinion of their customers and suppliers. It finds expression in failures in communication and also non-compliance with technical specifications, delivery requirements, quality standards, etc. A company's inability to adapt, or its unreasonable behaviour and poor

performance, may limit the extent of satisfactory interaction between the two companies, which would usually result in greater sales, closer collaboration, and mutual trust and respect. Some of these barriers are capable of being overcome by one or both parties to achieve a higher level of performance. Instances do arise in which a crisis has developed in a relationship resulting in the loss of a customer's business. *Autostart,* for instance, suffered the loss of their Swedish sales due to delivery delays during a transfer of production between factories.

CONCLUSIONS

It has been argued here that the interactions between suppliers and customers varies widely from one situation to another. There are extremes of interaction in several dimensions which prescribes its real boundaries and scope. A balanced and reciprocal exchange of extensive resources between companies can be contrasted with a one-sided provision of expertise or information by a single partner. Similarly, a wide and extensive personal contact pattern in the context of friend-ship, trust, and liking seems to be diametrically opposite to a single person contact, who exercises power over his counterpart and generates dislike, mistrust, and hostility. With this in mind, barriers to interaction have been considered as those which appear to prevent or severely restrict the commencement of any interaction between companies and those barriers which emerge when buying and selling companies trade with each other.

The interaction model outlined in the theoretical chapter must be seen to identify the interaction variables, processes, and elements and not to postulate a normative view that all relationships between suppliers and customers are comprehensive, harmonious, and permanent. The model provides the structure to this theme for identifying and illustrating barriers to interaction. These arise, first of all, in the environment of the country and market in which any interaction is contemplated. In most circumstances, they are outside the direct control of the companies concerned, but any supplier seeking to enter a market has to evaluate the risks, difficulties, and resources entailed in overcoming these barriers. Entry barriers into a market are compounded by the cultural, social, and language barriers due to differences in attitudes, procedures, and methods of communication. An understanding of these barriers often leads to the adoption of an incremental approach to reduce the social distances between companies and cultures. The use of agents and local nationals are obvious means, but these intermediaries may break down some barriers and create others by preventing direct interaction between companies. The mismatch and incompatibility between prospective partners to a business relationship is, in many cases, capable of being overcome by technical adaptations, organizational restructuring, improvements in the company's performance, or by changing the perceptions and expectations of the other party. These barriers to effective and comprehensive interaction take time to over-come, have to be negotiated in the market, and involve the expenditure of considerable costs and human resources.

NOTES

1. See the theme *The Development of Long Term Relationships between Buying and Selling Firms in Industrial Markets.*
2. Reference to these factors is to be found in the section on `Country Grid Analysis' in the Theme *An Interaction Approach to Marketing Strategies.*
3. See the Themes on *Marketing Strategies* and *Purchasing Strategies.*
4. See, for example, Turnbull and Cunningham (1980) and Kutschker and Kirsch (1979).
5. For a fuller discussion of purchasing strategies see the Theme *An Interaction Approach to Purchasing Strategies.*

SECTION 5.5 ATMOSPHERES

An atmosphere is related to the entirety of the relationship between a buying and a selling company. It is influenced by, or comprises, all the other variables. Thus, it can be seen as a `catch all' variable. One important aspect of it, perhaps the most important one, is the evaluation of their relative positions by the interacting parties, or in other words their feeling of power and dependence in the relationship. This will be the focus for the last theme. Because companies are involved in a struggle to survive and to benefit from negotiations within the relationship, their power position is a very important strategic issue. A company may achieve power through controlling the resources involved in the exchange `processes' between the two parties.

The development of relationships with certain customers and/or suppliers is one way to obtain a certain amount of control over input or output resources. Power and dependence, therefore, is a very central variable in the interaction model and the theme can be seen as one starting point for further research. The theme is introduced by a brief outline of different dimensions of power. Some of the dimensions discussed are the bases of power, the scope of power, and the time elasticity of power. As such, this part of the theme summarizes earlier published work. After this the author takes up problems that are more closely related to industrial marketing and purchasing. One such issue discussed is the existence of organizational and individual power in inter-company relationships. Another is the use of bilateral and multilateral concepts in power theory where one conclusion regards the relationship as a part of a network or as a part of a social field.

The theme concludes with a discussion of the measurement of organizational power in industrial marketing.

POWER AND DEPENDENCE IN INDUSTRIAL MARKETING

Michael Kutschker

This theme is perhaps the most tentative of those in the book. The area of inter-organizational power is relatively under-explored. Additionally, the area of study

is perhaps more positive in approach than the normative orientation of some of the other themes. The intention of this theme is to analyse the theoretical and empirical implications of an analysis of inter-organizational power-dependence relationships rather than to analyse results in order to draw normative conclusions. The theme uses the basic literature on power to see the relevance of these concepts in the industrial marketing and purchasing context and then moves on to the theoretical problems in the analysis and measurement of inter-organizational power in industrial marketing.

INTRODUCTION

Any attempt to analyse and apply the concepts of power and dependence in the practical context of industrial marketing would do well to heed Dahrendorf's warning first issued over twenty-five years ago:

> `The concepts of power and authority are very complex ones. Whoever uses them is likely to be accused of lack of precision and of clarity to the extent that he tries to define them exhaustively.' (Dahrendorf, 1969)

This theme is not an attempt to carry out a full analysis of the concepts of power and dependence. Instead, its aim is to explore some aspects of these concepts as they appear relevant to our empirical studies and thus to indicate directions for further development in the study of power relationships in industrial marketing.

BACKGROUND AND BASIC CONCEPTS

As a starting point we may take Dahl's (1957) concept of power, as have many subsequent authors. Dahl defines power as the determination of the behaviour of one social unit by another. Dahl's intuitive idea of power is; `A has power over B to the extent that he can get B to do something that B would not do otherwise.' Power is a property of the social relation and as Emmerson (1962) points out, it is vacuous to assert that `X has power' unless we specify `over whom'. However, power over whom is still an incomplete specification as we must add, `in such and such particulars (the scope of power)' (Lasswell and Kaplan, 1952). Because our area of study is that of inter-organizational relationships, we must emphasize that we are examining the mutual power positions of at least two actors, the supplier and customer organizations. Emmerson's (1962) concept of the power dependence relation is based on the idea that social relations commonly entail ties of mutual dependence between the parties. These ties of mutual dependence arise because each party is likely to aspire to goals of gratifications which are in some way conditional upon the actions of the other party. From this, Emmerson asserts that the power to control or influence the other resides in control over the things he values, i.e. *power resides implicitly in the other's dependence.*

We have already noted that traditional industrial marketing theory has tended

to analyse either the marketer or the buyer separately. Because of this, there is little in the literature which has looked at the mutual power relations between buyer and seller organizations. However, perhaps the most important contributions in the marketing literature from which we can draw are those in the distribution channel area. Here, several attempts have been made to measure the level of power of companies at different points in the channel,' whilst others have tried to relate power to channel conflict[2] or to look at the process of power related bargaining (Angelmar, 1976).

DIMENSIONS OF POWER

Many of the channel studies and indeed much of the power literature in general rests on the constituents of the power relation as proposed by Dahl (1957) and later added to by Harsanyi (1962). We will use these dimensions as a basis for our exploratory analysis of power–dependence relations in industrial marketing;

(a) Bases of power Dahl refers to the base of power as the *resources* that a party can use to influence a second party's behaviour. However, it is important to distinguish between a base of power and the resources possessed by a party. These resources can only be translated into a base of power by a company if those resources are important to a second company. For example, the technical skills and competence of a company is a resource which can be translated into a base of power over a second company if those skills are valuable to that second company. Dahl identifies six individual bases of power;

(i) Reward power
(ii) Coercive power
(iii) Referent power
(iv) Legitimacy power
(v) Expertise power
(vi) Informational power

Reward and coercive power are perhaps the most readily identifiable bases of power in an inter-organizational relationship. The offering of formal or informal adaptations by companies are seen as rewards either following or in anticipation of the actions of the other party, either in terms of adaptations or more basically over decisions to buy or sell. Clearly the ability to reward or coerce is a function of the resources possessed by the company. Examples of attempts to acquire such resources are provided in the *Britmet* case where the company aims to offer a `total problem solving capability'. The use of coercive power was much rarer in the cases in this study. There is clear evidence in the literature that the use of coercive power involves considerable `cost' to the user in terms of loss of good-will between the companies (Brigante, 1958).

Referent power has its basis in the wish of one company to identify with or be associated with a second company. This power was first clearly documented in

Kriesberg's study of the Gray market in steel in the United States during the Korean war. Here it was very clear that a number of suppliers wished to join the group of `insider' suppliers and in order to do so carried out the norms of that group of insiders which involved the giving up of excess profits which could have been made at that time. Examples in this study of the importance of referent power have occurred in the wish of a number of companies to be associated with suppliers or customers from a particular country. The *Antriebswerke AG* case shows an example of negative reference power in that the German customer does not wish to be associated with British firms which have negative connotations for him. On the other hand, it was clear in the *Ace Motors* case that the company valued collaborative association with Swedish suppliers because of their imputed efficiency. This value goes beyond the advantages which could be expressed in conventional financial criteria.

Legitimacy is the fourth of the bases of power proposed by French and Raven (1959). Its importance in the case of buyer—seller relationships in industrial markets is particularly relevant in the long-term stage of those relationships. During this time, we have noted that the mutual expectations of the companies become clear. It may thus be considered legitimate by the two companies that one of them shall be responsible for pricing to the ultimate customers for the product, or shall be able to direct terms of payment, etc.

The final two bases of power, expertise and informational power, can be treated together. We can distinguish between these two bases in that expertise power rests on a company's willingness to accept `facts' based on his prior evaluation of the credibility of the company supplying that information, i.e. that it is considered expert. On the other hand, a company may accept information from another company based on his own evaluation of that information and independent of any assessment of the supplying company. The *Sud Composants* case is an example of a company which has established a position of expertise in overcoming the problems of customer firms and therefore acquiring a base of power. We have already noted this similar ability in the case of *Britmet.* However, it is worth returning to the distinction between resources and base of power at this point. The development expertise resources possessed by the *Belter* company are not a base of power in its dealing with many companies. This is simply because they are not valued by this new generation of customers. The importance of these two bases of power was reflected in our questioning about commercial and technical informational flows between companies.

(b) The means of power The means of power comprise the activities by which a company transforms its inert resources for actually influencing another company's behaviour. This includes the activities of advertising and promotion, of sales effort, persuasion, promises, or threats. The importance of the means of power is particularly great in the industrial marketing and purchasing context. We have examined this within the context of our questioning on contact patterns. A number of our cases illustrate the problems caused when companies are unable to communicate effectively with their partners and thus operationalize their power

potential. For example, the German company in the *Ace Motors* case has been unable to capitalize on its strengths because of its inadequate communication with Ace. Similarly, *Belter* has great engineering and development skills, but is unable to transform these resources into influence. This is because of the inappropriate means which they employ in their commercial negotiations.

(c) *The scope of power* According to Harsanyi (1962), the scope of power refers to the set of specific actions which a company can get a second company to perform by using his means of power. Thus, a seller company may have power over a customer's stock level of his product but have no power over the prices which are charged to the ultimate customer. Similarly, a customer could have a varying scope of power extending across price reductions, product modifications, adaptations on business terms or changes in delivery, and distribution procedures. A customer's scope of power can also include forcing the supplier to set up a subsidiary, particularly designed for the purposes of handling the relationship with a specific customer, as in Aa relationship of *Maschinentechnik und Motoren.* Another example of an enlarged scope of power is the organizational change of B's forwarding department in the same case due to the pressure of the requirements of the French vehicle manufacturer Ba.

(d) Extension of power Dahl's fourth constituent of the power relation is the extension of power (Dahl, 1957). In the industrial marketing context this refers to the set of companies over which a company has power. Thus, in order to achieve a full description of a company's power we need to include the horizontal extension of that power, i.e. the number of companies at any one level in a manufacturing channel over which the company has power as well as the vertical extension of that power, i.e. the number of subsequent manufacturing or distribution levels over which power is exercised. The study has been undertaken on a European basis and there are clear differences between a number of companies who have considerable market strength (which can be interpreted as an extension of power) in certain countries but very much less power in other markets. Differences in this are clearly apparent in the *Unifix case.*

(e) *The costs of power* The use and transformation of power resources may involve considerable costs to the influencer. This includes the costs of the acquisition of resources and securing the opportunity to carry out an influence attempt. *German Steel's* new marketing philosophy to offer its important customers better technical advice is an example of these costs. Frequently, these costs are incurred as developmental work undertaken in the expectation that the offer of this reward will induce a purchaser to buy.

(f) *The amount of power and the strength of power* The amount of power is defined as `the net increase in the probability of B's actually performing some specific action X, due to A's using his means of power against B' (Harsanyi, 1962). This concept is clearly related to that of the strength of power which is a

measure of the opportunity costs to B of withstanding A's attempts to influence his behaviour. The greater the costs to B, the greater his dependence on A. Refusing the attempts to be influenced means often that a company has to bear the costs of changing a supplier or customer. Sprinter's relationship with its UK supplier shows the efforts and costs involved in changing a supplier in order to withstand the influence attempt of the UK supplier in increasing price. The strength of a supplier is illustrated too in the *Belter* case where failure costs make the German customer reluctant to change its supplier. This example also shows that power is not only a matter of costs, but also of time. The power dependence relationship between companies is not a zero-sum equation. The power of both parties can increase or decrease over time. However, in order to measure changes in a power position in a relationship we must be aware of the time costs involved and we shall turn to this shortly under the heading of the `time elasticity of power'.

The dimensions of power which we have briefly outlined above are applicable to both sides of a relationship. As well as using these terms in description of the power of either party, we have earlier noted that the power of one party is implicitly the dependence on that party of another. Our cases include many examples of dependence and efforts to reduce the dependence of one company upon another.

In *Autostart,* both customer and supplier are dependent on each other for their technological leadership and competitiveness. Effective matching and adaptations of systems and procedures of both parties had made it difficult for either party to withdraw from the relationship in view of the large technical, financial, and human resource investment.

A further example of technical quality of a supplier producing a dependent relationship occurs in *Sud Composants* where the supplier's components account for much of the real value of its French customers final products.

Efforts to reduce dependence occur when long relationships have developed within the home country. Autostart indicated that national suppliers are economically over-dependent upon their own national customers and it takes a long time to break the dependence on the home market. *Britmet* showed that such dependence may cause a supplier to go abroad. However, there are also examples where a dependence must arise as in *Auto Equipement* where there was a unique European supplier of the necessary machinery. Furthermore, because this supplier also supplied to Auto Equipement's other suppliers, Auto Equipement had to use this supplier's equipment. The supplier was able to exploit his monopoly position to create a dependent relationship. *Svefo* is another example where the strong market position of the supplier allows a supplier to continue without much respect for this customer. Often this dependence is closely related to the value of the product and how essential that product is, although dependence will be created by the customer also because of the costs of re-orientation of sourcing.

(g) The time elasticity of power We have discussed the dimensions of power and their relevance. We have already noted that there may be considerable costs incurred for an organization seeking to modify the power dependence relationship

with another company. In particular, we now turn to the mention of time involved in any change in this relation. Basically, the more time-elastic the relationship is then the easier it is for one or other party to change that relationship. The two diagrams below show the difference between a time-elastic and a time-inelastic power relationship:

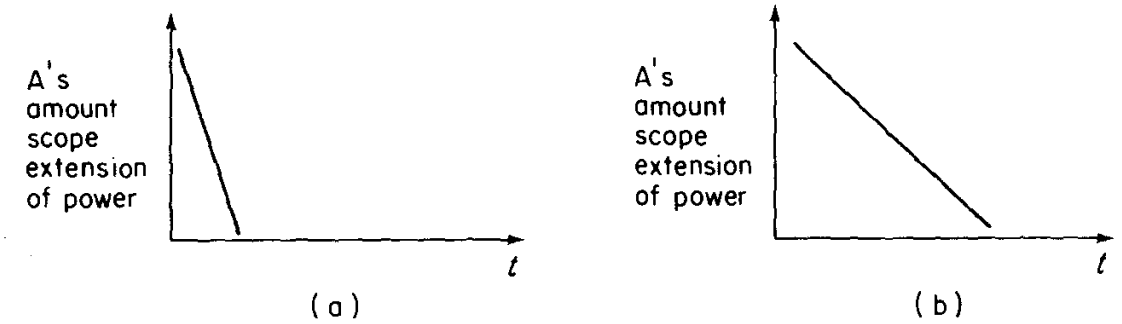


Fig. 1 Time-elasticity of power

In Fig. 1(a), a relatively short time span is sufficient to reduce power, for example a vehicle manufacturer changing a supplier of standard steel would fit this category whereas the removal of a company's dependence on a manufacturer of specially designed injection pumps would be more similar to the curve in Fig. 1(b). The time elasticity of power builds on the earlier dimensions of power, extrapolating them over time with regard to a company's striving for independence. However, the concept of time elasticity is not directly related to chronological time. Different rates of change of the two organizations can mean that their time elasticities of power can also differ. An illustration of this is provided in the *Teximac* case. The company has followed a quite different path of evolution to its supplier Mintoff. The growth rate of Teximac has been much higher and hence Teximac has now double- and multi-sourced products giving it considerable power in negotiations with Mintoff, whereas previously it was heavily dependent on Mintoff.

ORGANIZATIONAL AND INDIVIDUAL POWER IN INTER-COMPANY RELATIONSHIPS

This question includes the problems of Nagel's question whether the whole is more than the sum of its parts (Nagel, 1968), whether new organizational proper-ties – like organizational power – emerge when individuals work together in a collectivity. Our position in dealing with inter-company relationships assumes that the joint operation of organizations' members contains synergistic effects which will cause emergent properties attributed to the organization. This holistic approach to organizational power does not imply an explanation of transactional power solely from the organizational perspective and therefore neglecting the effect of individual decision-makers. We hold a two-fold methodological position that the variants of behaviour in transaction episodes needs to be explained both at the collectivistic level and at the individual representative level.

We are thus suggesting that the correct route of organizational influence is via the cognitive processes of both companies' representatives. The collectivistic approach excludes this argument and supposes that the transaction episode can be exclusively explained by reference to the supplier's and customer's power potential. The *Maschinentechnik und Motoren* case is an example of an exclusively collectivistic explanation, basing the transaction episode's outcome exclusively on the size difference of the interacting firms; size difference being taken as an indicator of the power dependence relation of the firms. Additionally, we must allow that the representatives' cognitive processes, including individual and collective decision processes to use or withhold organization influences, act as mediators in the exercise of organizational power. Also, company representatives will interact on the basis not only of the organization's power but also their own individual power potential. Thus the relationship is between collectivities and individuals, both having power potentials.

The representatives' own power potential can increase or decrease the perceived organizational power potential. The distinction between organization and individual power potential opens the perspective for the analysis of the inter-dependencies between both facets. This inter-dependence has remained unexplored in the inter-system literature, because of the `either/or' approaches to inter-organizational or international relations, i.e. the analysis either pursues a voluntaristic (individualistic) approach, concentrating on the joint decision processes of individual representatives[3], or they follow a purely collectivistic approach regarding inter-dependent social systems as `deserted black boxes'.[4] This procedure excludes questions such as the following: Will a negotiator possessing considerable technological expertise activate the organizational know-how for influencing his counterpart, or will he rely exclusively on his own individual power base? Is it possible that an organizational dependence could be countered by a reciprocal dependence of an individual representative? What will be the consequences of an individual's identification with his own or the other organization?[5] This list of questions can be easily extended, but not answered at the present state of inter-organizational theory.

We can use the *Unifix* case and its relationships with United Shipowners Ltd. to illustrate some aspects of the theoretical points made above. This relationship has been characterized by close personal relationships, mutual trust, loyalty, and the business has been based much more on gentlemen's agreements than on legal arrangements. The merger of United Shipowners with a larger company drastically changed the balanced state of mutual dependence between the companies by bringing in competitive pressures. The reaction against the disturbance clearly demonstrates how the power potential of United Shipowners senior management was activated to counteract the purchasing policies of United Shipowners' parent company. However, this collaboration could not prevent the considerable price concessions necessary to maintain the supplier–customer relationship with Unifix. This result can be explained by the combined effect of the opposing individual and organizational power bases; the United Shipowners' senior management relying on the parent companies information dependence,

whereas the latter apparently played its trump cards of purchasing policy and competition successfully.

BILATERAL AND MULTILATERAL CONCEPTS IN POWER THEORY

The interaction approach to industrial marketing, with its emphasis on the explanation of dyadic behaviour, runs the risk of neglecting the extent to which dyadic relationships are embedded in a wider network of relationships.' Thus it is necessary to include the surrounding socio-economic field in any analysis of inter-dependent organizations. Cases in which double sourcing and competition play a vital role indicate that the analysis of bilateral power relations can produce a too narrow view of inter-organizational power. This is illustrated in the Unifix case.

The dual selling situation which Unifix faces in its relationship with Shiffswerft AG throws light on a multilateral dependence relation. It is shown in Fig. 2.

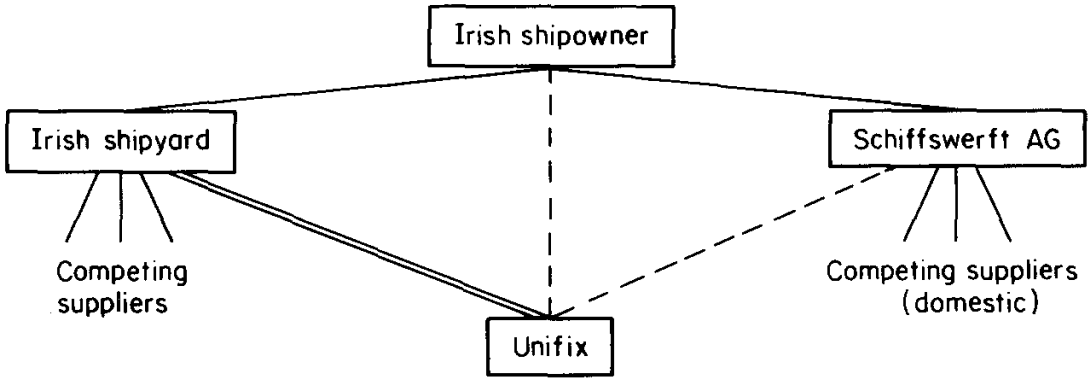


Fig. 2 Multilaterality of power relations in industrial marketing

A simplistic interaction approach would attempt to explain the double lined relationship Unifix–Irish shipyard. The search of Unifix's agents all over Europe for the Irish shipyard's competitors and the proper power holder behind the scene, demonstrates that Unifix's representatives are well provided with lay theories' about the multilaterality of power-dependence relations in industrial markets.

Network analysis in inter-organizational theory delivers the theoretical framework for handling the problem of multilateral power relation (Ohe, 1978). We can distinguish at least two approaches.'

P-centric analysis
set-centric analysis

P-centric analysis reduces the complexity of multilateral relationships by decomposing the network into bilateral relationships. Thus, to explain the inter-organizational behaviour in the network shown in Fig. 2, a P-centric perspective would form all dyadic relationships of Unifix, the Irish shipyard, Schiffswerft, etc., using, amongst other variables, power as an explaining independent variable.

The difficulty in measuring the different dimensions of power has led empirical research in inter-organizational and international relations to take the resources of a social system as a unit of measure. This control over resources approach fits

with the P-centric view of inter-organizational relations, whereas the `control over outcome' approach is better adjusted to the set-centric view of inter-organizational relations.'

The set-centric approach views all of the relations in a network simultaneously, which should ensure the comprehension of the multilaterality of the relationships. The empirical realization by means of the control over outcome approach takes as a starting point an event, for example the concrete transaction episode in the Unifix case. Then, from a retrospective comparison of the transaction episodes outcome with the preferences and interests held at the beginning of the episode by the parties, their respective power is inferred. Besides its ex-post character, the retrospective calculation of power potential neglects the dynamics of power relations, resulting from the sequence of relevant events. Thus, in an example from another area, the negotiations and power positions of the SALT II negotiations are considerably influenced by the outcome and power consideration of SALT I. This situation is typical in the industrial marketing context, where the dynamic structure of power and dependence is bound to the *sequence* of episodes. Thus it is necessary to analyse the current power structure with respect to and including past and prospective transaction episodes.

Although the set-centric approach, in combination with the control over outcome approach, is better suited to portray the reality of multilateral relationships, we currently prefer a P-centric approach using the control over resources approach. This is for several reasons:

1. The control over resource approach has been seen to have sufficient predictive power in the international relations area (Hendricks, 1976) and particularly in the field of industrial relations (Hart, 1976).
2. The extension, variety, and variability of networks in industrial marketing can be extremely complex, thereby ruling out a set-centric analysis. A P-centric view can more easily define and select the relevant dyadic relationships.
3. There is no contradiction between the two approaches. Theoretically, the control over resources approach can be extended into the control over outcome approach (Rummel, 1977).
4. The P-centric approach, particularly that of Rummel, is capable of integrating and mastering empirically the problem of social time, i.e. the situation's specific time scale.
5. Finally, the P-centric perspective of inter-organizational relations and the measurement of organizations' power in terms of their resources fits neatly in the existing frame of references of industrial marketing, like those preferred by the authors of this volume

We can now convert this rather theoretical discussion into empirical design in the next section.

THE MEASUREMENT OF ORGANIZATIONAL POWER IN INDUSTRIAL MARKETING

While discussing multilaterality in inter-organizational power we temporarily abstracted from the multilevel problem of individual or organizational power

potential as discussed in the previous section. In this section, we will take a purely collectivistic approach, using attributes of organization as indicators of organizational power. We must keep in mind however, that for theoretical reasons an empirical design on this basis will tell only part of the truth. For a comprehensive empirical analysis we should bring in men's minds and activities.[10] Even if we neglect this multilevel problem of social sciences, the measurement of organizational power remains a complex task of empirical design. If we by-pass intuitive operationalization, we could follow a field-theoretical procedure:

1. Identify the socio-economic field's set of elements, which influence an interesting transaction episode.
2. Find a set of variables, which describes the dyadic behaviour between the participants (organizations) of a transaction. Construct a list of attributes for the description of the socio-economic field's elements, including the participants in the transaction episodes.
3. Reduce the set of variables by means of factor analysis. Variables, referring to organizations' resources, should load on a factor, identifiable as the power dimensions. The factors or dimensions span attribute and behavioural spaces.
4. Locate the elements of the socio-economic field as vectors in attribute space and couple them into dyads in behaviour space.
5. Differences in the elements' scores on the dimensions of attribute space (vectors) are social forces, determining the location of a dyad in the behaviour space. Thus organizational power – being one of the finite set of dimensions – is connected with dyadic behaviour by means of canonical correlation.

This extensive procedure for measuring organizational power in a multi-organizational field is `borrowed' from the social-field-theory of international relations. There, theory and empirical design proved to be successful."

Compared to this sophisticated empirical design, our own empirical design and measurement of organizational power in inter-organizational relations, as shown in the *Maschinentechnik und Motoren* case, seems to be rather poor.

The reduction of the socio-economic field's multilaterality to analysis of bilateral supplier–customer relationships and the use of organizational size as a single attribute, intuitively chosen as an indicator of organizational power, are simplifications of the above presented procedure. This may question the validity of the empirical findings. However, for an evaluation of the theoretical–empirical gap we should take into account the present state of empirical analysis in inter-organizational relations. As far as we can see, the attributes of organizations indicating their power are measured in absolute terms. So far, we interpret the results of our empirical exploration as an encouraging advance and not as empirical proof that power and dependence between organizations is a multi-lateral phenomenon to be measured by attribute distances. The empirical results of *Machinentechnik and Motoren* show that the extension of additionally granted services depends on the power relation, expressed by the size difference of supplier–customer organization. One of the urgent tasks of inter-organizational power theory will be the empirical determination of individuals' and organizations' power indicators.

NOTES

1. See for example: Wilkinson (1972), El Ansary (1970), Hunt and Nevin (1974), and Ford (1976).
2. See for example: Lusch (1976), and Stern, Schulz, and Grabner (1973).
3. See for example the contributions to international relations by Holsti, Brody, and North (1965), Snyder, Bruck, and Sapin (1962), Sprout and Sprout (1965), Zinnes (1972), Zinnes, North, and Kock (1961).
4. Akinbode and Clark (1976), Thomas, Walton, and Dutton (1972), for a review of literature see Crott, Kutschker, and Lamm (1977).
5. See the illustrative analysis of Strauss (1962).
6. For the role of lay theories in research, see Pondy and Boje (1976) and Pondy and Mitroff (1978).
7. See for example Benson (1975), the contributions in Neghandi (1975), Turk (1973), Emerson (1962), Evan (1966).
8. For the distribution of three approaches to the measurement of power in international relations see Hart (1976), who differentiates between a control over resources, control over actors, and control over events and outcome approach.
9. See the results of the Don Project, Rummel (1977), further East (1972), Galtung (1966), Park (1972).
10. The increase of a combined individualistic and collectivistic design's predictive power is empirically shown for the analysis of inter-organizational negotiations in industrial marketing in: Kutschker and Kirsch (1978).
11. For example Levinson (1966), Hendricks (1976), Hildebrand (1973).

Chapter 6

Relationships and Competitive Strength

INTRODUCTION

We have presented the background and some results from a large investigation of industrial markets in this book. The starting point of the project was a challenge to the traditional way of examining industrial marketing and purchasing. Specifically we challenged the following:

(a) the concentration on analysis of single, discrete purchases and sales
(b) the view of industrial marketing as the manipulation of certain marketing mix variables to produce a response from a passive market
(c) the view which implies an atomistic structure of free and independent units in industrial markets
(d) the separate analysis of either the process of industrial purchasing *or* of industrial marketing

Our approach in this study has instead emphasized the following:

(a) the need to consider the overall relationship between a buying and a selling firm when analysing a single purchase
(b) the interaction between two active parties in a relationship. This means that the buying companies' reaction to the sellers' actions are equally important in the analysis.
(c) the stability of relationships. This stability rests on the investments which have been made in the relationship by the two parties
(d) the similarity in the tasks of buyers and sellers in industrial markets.

From these starting points a descriptive theoretical model consisting of four main variable groups has been formulated. The four groups relate to, respectively, (a) the interaction process, (b) the interacting parties, (c) the interaction environment, and (d) the atmosphere in which the interaction takes place. This descriptive model formed the basis for the design of data collection covering relationships between buying and selling firms in five countries. More than 800 relationships between firms in different industries have been investigated. Some of the data has been presented in this book in the form of company cases. The variables in the theoretical model as well as connections between them have been developed further in the analysis of the cases and in the `themes' which follow them. In this way the model has been moved towards an explanatory level.

The research project is not yet completed as further analysis of the total data is currently being carried out. Thus, it would be inappropriate at this stage to draw any `final' conclusions. Instead this volume will be completed by a discussion of the connection between a company's competitive strength and its relationships with customers and suppliers. Thus, the aim here is to extend the theoretical development one step further to a normative level with respect to both seller and buyer firms.

Earlier in this book, the interaction between buyers and sellers has been described and analysed by using a number of concepts. These are mainly descriptive in nature and need to be developed further in moving towards normative applications. One way to emphasize the normative element is to use concepts which describe the interacting parties' positions with respect to each other and to other potential parties. At the same time, the concepts must be applied in accordance with our earlier framework. Thus, the selling firm needs to be characterized in relation to the buying firm as well as to other selling firms. Similarly the buying firm must be described in relation to the selling firm and to other buying firms. In this way their relative positions and thereby, their relative potential use of each other is described.

The concepts must also be related to the firm's own characteristics in order to be useful normatively. This allows a comparison of the firm's position in the relationship with its actual characteristics. In this way it will be possible to discuss and evaluate changes both in the firms' positions and in their characteristics.

One way in which this can be achieved is to use the concepts of *problem solving* and *transfer* to characterize the relationships between sellers and buyers (cf. Hakansson and Snehota, 1976; Hakansson and Johanson, 1979; and Hakansson, 1980). The buying firm's need can be characterized in terms of the problem it requires to be solved and how the problem solution can be transferred to it. The problem can be more or less difficult to solve. It can also be more or less unique. In the same way, the transfer can be more or less difficult to carry out and more or less unique. Correspondingly, the selling firm can be characterized in terms of its problem solving ability and its transfer ability. This describes the seller's ability to meet the buyer's need for problem solving and transfer. In this way, the description of the seller is directly related to the description of the buyer, and vice versa. At the same time, both the needs of a specific buyer and the abilities of a specific seller can be directly compared with the needs of other buyers and the abilities of other sellers.

These concepts will now be used to identify and characterize different types of buyer—seller relationships. The concepts will be used in conjunction with those descriptive concepts developed earlier in this volume (see Chapter 2). Next the concepts are used to formulate different marketing and purchasing strategies. Key factors will be identified which give firms competitive strength when using different types of strategies. The strategies describe the type of relationships the firm aims for, and the dynamics of those relationships. The importance of matching strategy and firm development is also discussed.

BUYER—SELLER RELATIONSHIPS

One way of characterizing a buyer—seller relationship is to compare it with other similar relationships. This can be done both from the buying and from the selling companies' points of view. The specific needs of the purchasing company can be compared with the needs of other purchasing companies. The selling firm's offered solution can similarly be compared with other sellers' offers. Both the needs and the offers can be characterized in terms of problem solving and transfer. Thus a specific relationship can be compared with others in the same field in terms of the content of the problem solving and transfer which is carried out. Additionally, it is important to analyse the extent to which the problem solving in the relationship is more or less difficult and more or less unique. We shall use the terms *general problem solving* to characterize the relationship with respect to how difficult, complex or advanced the solution is and *adapted problem solving* to characterize the relationship with regard to the adaptation of the solution to a specific customer's need. The same distinction is made between *general transfer* and *adapted transfer.* It should be noted that these dimensions refer to the buyer's problem as well as to the seller's ability. When a specific relationship is classified in these dimensions, this is done in relation to other competing relationships in the same field.

In Figure 6.1, two diagrams are presented, one for problem solving and one for transfer. In each of them we identify *a general* and an *adapted* dimension. A specific relationship can now be characterized by its position in the two diagrams. For the purpose of the following discussion we have only distinguished between high and low positions in the diagrams. Thus, we will discuss four types of problem solving relationships and four types of transfer relationships and relate them to the interaction concepts presented earlier. So far in this discussion we have taken outsiders' perspectives of the relationships. In later sections the relationships will be discussed from the seller's and the buyer's perspectives respectively.

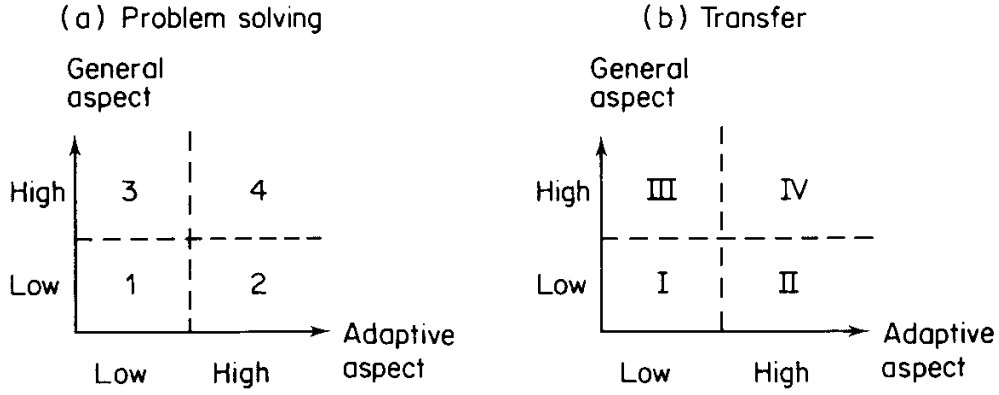


Figure 6.1 Two descriptive diagrams of buyer/seller relationships

PROBLEM SOLVING

Relationship with ordinary and unadapted problem solving. (Position 1) This relationship is characterized by the buying firm having a problem which can be solved in a standard way by several suppliers. In general, it is easy to solve and there is no need for individual adaptations. The seller's offer is designed accordingly, and is completely standardized. As there are no obstacles for either side to change counterparts, the relationship is almost non-existent and unstable. This is typical exchange-through-market.

Relationship with ordinary and adapted problem solving. (Position 2) This differs from the first relationship as the problem solution is adapted to the specific customer's need. The problem is, however, not more complicated or difficult, it is just different. Special dimensions or a special styling of the product, or simple customer designed systems, are examples of such relationships. As the supplier has adapted its solution to the specific customer's need a more extensive information exchange between them is required. It takes time to develop this type of relationship and there is a need for developing mutual trust as both parties make an investment in the relationship.

Relationship with high but unadapted problem solving. (Position 3) In a way this relationship is the opposite to the second. The problem solution is a standard solution in the sense that it is not adapted to the specific customer's need, but it is on a more advanced level than the ordinary solutions in the market. As the problem is difficult, the information exchange between the parties is extensive and contacts between several departments in the firms are required. As both parties have to learn about the counterpart in order to find out whether they match each other it takes considerable time to develop the relationship. The relationship also demands mutual trust, as the firms usually have difficulties in finding alternative counterparts. The specialization automatically decreases the number of potential counterparts. Investments are not made directly in the relationship but in equipment and other resources necessary to be able to take part in such relationships.

Relationships with high and adapted problem solving. (Position 4) These are very special relationships. They concern advanced solutions which are also adapted to the specific customer's situation. The seller has considerable ability to solve difficult problems and in this relationship it has adapted its ability to the individual customer. This kind of relationship is characterized by extensive contacts, large adaptations, and a substantial need for mutual trust. The investments in the relationship are very considerable and go beyond the technical and organizational resources which are needed in order to attain the high general level. Both the need and the ability are dynamic and they develop through the relationship.

We will not characterize relationships with respect to transfer ability. A real relationship is, of course, a combination of problem solving and transfer, and so inevitably these separate descriptions are only partially complete.

TRANSFER

Relationship with ordinary and unadapted transfer. (Position I) There is no special transfer ability vested in this relationship. There is no requirement for unusually fast or precise transfers of products or knowledge. Typically, the buyer is satisfied with standard performance, neither high nor adapted. The parties can change counterparts whenever they want and there is consequently almost no significant relationship.

Relationship with ordinary but adapted transfer. (Position II) The customer does not get a higher high performance in general from the supplier, but it gets special adaptations or attention. That can mean two things. Either the transfer is made in some special way, or occasionally there are special needs regarding for example large quantities, fast deliveries or technical assistance. Such relationships require that the seller designs special routines for the customer. For that purpose several persons must be in contact with each other in the two firms. As the two parties make investments in the relationship there is a need for mutual trust between them.

Relationship with high but unadapted transfer. (Position III) Here the buyer gets very high transfer performance from the supplier but it is not adapted to the customer's individual need. The high performance may involve the timing or reliability of deliveries or amount of technical assistance. The supplier gives the buyer considerable security. Close co-ordination is required between the two parties and thus extensive contacts are needed. Consequences of failures in meeting the buyer's demands can be very great, so there is also a need to develop mutual trust between buyer and seller. It is easy to see that the buyer needs to trust the supplier, but the supplier also needs to be able to trust the buyer. The supplier is likely to need to make considerable investments in order to attain the high level of transfer performance and there are often only a few customers which require this. Thus, if the customer fails as a purchaser in any way, then the consequences to the seller may be very large.

Relationship with high and adapted transfer. (Position IV) Here the customer obtains high performance from the supplier, which is also adapted. This is a highly integrated buyer–seller relationship requiring large adaptations and extensive information exchange. The relationship takes a long time to develop, it involves a lot of people on each side, and it is very close.

These descriptions have pointed out the differences between the relationships at points in the two diagrams. These differences are related both to the resources and the activities of the participating firms in a number of ways. Clearly, to operate different types of relationship requires different resources. On the other hand, different types of resources possessed by the firms involved means that different types of relationships will be established. In the following sections we will discuss the marketing and purchasing strategies involved in each type of relationship. We

will also consider the factors which give a company competitive strength when using these different strategies.

RELATIONSHIPS, MARKETING STRATEGIES, AND COMPETITIVE STRENGTH

The marketing strategy of a company or business unit within a company can be described and analysed by using the dimensions presented above. In Figure 6.2 some strategies are named and positioned in the same type of diagrams which were used in the preceding section.

The diagrams can be used in several ways. We have used the concept of the customer portfolio earlier in this volume. These diagrams can be used to describe that portfolio. Additionally, the diagrams can be used to position a selling firm's strategy in relation to its competitors in the two diagrams and to discuss the development of the firm from that perspective. Here, the diagrams will be used first to illustrate the limitation and handling problems facing the seller in its relations which were mentioned at the end of Chapter 2. Secondly, we will discuss the technical and organizational features which are necessary in the selling firm when following different strategies.

The marketing strategy of a company can be described by positioning the company in both the problem solving and transfer diagrams. The two dimensions of each diagram represent different kinds of abilities. One represents the company's general ability which, of course, is dependent on the company's technical and human resources. The second dimension characterizes the company's ability to use these resources in relation to specific customers. This ability depends on the flexibility of the comany which in turn is dependent on organizational and technical factors. Thus, in order to increase its general or adaptive ability the company has to make investments in equipment and/or in the organization. This leads us to the limitation problem. A company has to operate limitations; it can only deal with a limited number of customers in a certain way and with a given level of efficiency. A competitive limitation on this level of service should be based on the company's own attributes and on how the competitors have made their

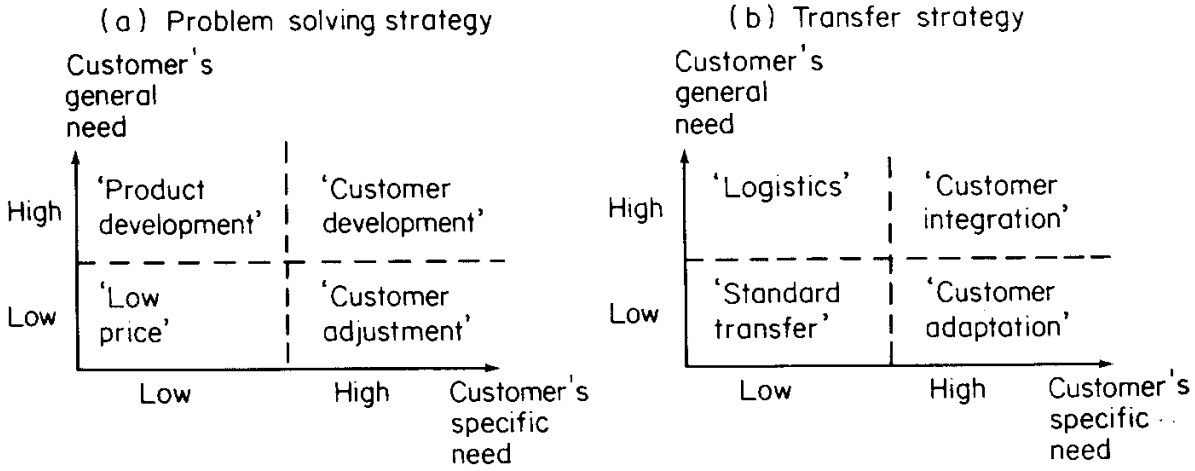


Figure 6.2 Marketing strategies and customer relationships

limitations. In order to illustrate the necessity of this limitation we will describe the eight strategies identified in Figure 6.2 and their requirements on the selling firm's attributes. At the same time we will discuss the handling problems in the seller's relationships as these are quite different for the eight strategies.

Marketing Strategies for Problem Solving

(a) *'Low price'* This strategy is based on customers which do not have any individual demands on the functional qualities of the product. These customers want a completely standardized product in respect of quality, dimensions, and design. There remains, thus, only one major aspect in the buyer's problem — the price. Competitiveness in this case is based on achieving the lowest price. The customers are found in a mobile market with unstable relationships. Therefore, to be competitively strong a selling firm needs to have low production costs. There are two ways in which the firm can achieve this. It can either have low factor costs — cheap raw material, energy, labour, or capital — or it can have efficient production, for instance based on economies of scale. Marketing costs require to be kept low for this strategy and contacts with customers will be restricted.

(b) *'Customer adjustment'* This strategy is directed toward customers which demand that the product is adapted in some way to their individual needs. This can involve adaptations to design, dimensions, or quality, etc. On the other hand, demands with regard to the product's overall functional qualities are not high. In this situation the buying firm places value on the supplier's ability to adapt the product to the customer's requirements in relation to the price which is asked.

This strategy places great emphasis on the seller's flexibility and customer contact. If it is unable to meet these requirements then the seller cannot accomplish the adjustment to the needs of the customer which the strategy demands. Flexibility in the seller's production equipment is usually necessary, and there is a need for personnel to be able to re-adjust quickly between the different orders. Local contact with the customers puts great demands on the marketing organization. There must be a straightforward and simple way for the customer to contact the supplier and to get his needs discussed. The handling problems of the selling firm primarily concern making the right adaptations, both in relation to the customer and to its own production. Close control of production is consequently important.

(c) *'Product development'* This strategy is directed towards customers which put great demands on the functional qualities of the product, e.g. from a material or a dimensional point of view. On the other hand there is no demand for individual customer adjustments. When following this strategy, the selling firm tries to be technically ahead of its competitors, and is continually developing products with better qualities than its present ones.

For a firm to be able to follow this strategy it must have a thorough knowledge of its customers, covering both their current and future demands. The seller must

also be able to develop and produce the advanced products required. This means that the firm must have intensive product development, advanced production equipment, and highly qualified personnel. The handling problems in this case focus on the technical content of the relationship, as the buying firm's problem is complicated and the solution is advanced.

(d) 'Customer development' This is a combination of `customer adjustment' and `product development'. It puts very great demands on the technical equipment and organizational planning of the selling firm, since flexibility must be combined with a high degree of specialization, etc. The handling problems are mainly influenced by the close co-operation with the customers with regard, for example, to the organization and planning of this co-operation.

Marketing Strategies for Transfer

(a) *`Standard transfer'* This strategy aims at customers which only have the normal needs of transfer. The seller tries to minimize the cost of the transfer and this strategy is, therefore, very similar to the `low cost' strategy (above).

(b) *`Customer adaptation'* This strategy can be used when some customers need transfer adaptations, or occasionally special transfer performance. The customer may need deliveries in a specific non-standardized way, or it may need faster deliveries sometimes, or special technical assistance on certain occasions. For example, the customer may require help with the use of the product. Therefore, training and information services must be made available by the selling firm in those situations when the buyer needs them. To be competitive in these relationships, a selling firm must have a flexible marketing organization that can react quickly and accurately to signals from customers, and which is able to give the customers the technical assistance they need. The handling problems which are most important in these relationships concern the management and follow up of these transfer adaptations.

(c) *`Logistics'* Here, the buying firm has great demands for precision, volume, promptness, and/or technical assistance in deliveries. The selling firm has to have a large capacity and precision in its production and in its deliveries. The planning system must be well developed and reliable. The handling problems of the selling firm are mostly concerned with the `logistics'; stocks, transport, and so on, but they may also involve the organization for after-sales repair and service.

(d) *`Customer integration'* This strategy means that the seller tries to develop very close links with customers with regard to the transfer of his products. The planning systems of the two firms are co-ordinated, as are their stocks and trans-port facilities.

This strategy requires that the selling firm has both a high general ability in transfer and considerable ability to adapt and integrate in his relationship with the

customer. The seller's marketing organization is very important in this strategy as it must initiate and develop this integration. The handling problems are dominated by the integration and such factors as the development of special routines for individual customers which can also be incorporated in the existing planning system.

This description of the different potential strategies has shown that the whole of the selling company is influenced by the type of relationship it has with its customers. Its production is influenced both in terms of equipment and planning systems, as is its R and D activities, its organization, and so on. The seller's limitations in certain types of relationships served makes it easier to develop an efficient structure of the firm, which is necessary in the face of competitive pressure. Earlier in this book we have illustrated how the product and process technologies of the selling and/or the buying firm influences the behaviour of both companies and the problems which they face. This is one example of the connection between the characteristics of a firm's buyer—seller relationships and the firm as a whole. From this we can conclude that if a firm tries to change its strategy with respect to its relationships, then it is also likely that it must make changes in its technical and organizational features.

In real situations the firm's strategies will often be mixed. A seller may adopt one strategy in relation to one group of customers and a different one to others. As an example, the customer development strategy may be used in relationships with some major customers and the product development strategy with the remainder. In these situations the seller faces another limitation problem. There must be limitation rules which can help personnel decide how a new customer should be treated, or how they should deal with the requirements of existing ones.

The dynamic nature of many markets is a factor complicating strategy development. There are two tendencies influencing the markets in opposite directions. Firstly, standardization makes markets move towards the `low cost' position. Secondly, specialization makes them move in the other direction, towards `customer development'. Some markets are characterized by both an increasing degree of standardization and an increasing degree of specialization. This clearly makes it very important to have a clear strategy to follow.

To sum up, the positioning of a selling company in the two diagrams, and hence its strategy is dependent on:

(a) the distribution of customer requirements in the four dimensions,
(b) the strategies of competitors,
(c) the technical, organizational, and human resources which the company controls.

This last point has been emphasized several times earlier in the book. The connection between, for example, technical resources and the selling firm's general abilities is well known and widely discussed. Perhaps less established is the connection between the ability to design individual solutions and the technical and organizational resources required by the seller. This connection becomes even

more important when customers are situated far away as in the case of companies selling internationally.

This discussion of marketing strategies can be illustrated with some of the company cases from this volume. The *Siderex* case shows the organizational and technical changes which must take place when strategy is changed. Siderex had a very clear `customer adjustment' and `customer integration' strategy in relation to three customers. All its resources were designed for this. When it had to approach more customers, it had to develop new routines, new technical resources, and a new organization. The *Belter* case shows some of the problems a company meets when it tries to follow a `customer development' strategy in a market which is moving towards increased standardization. In the same way, the *Swesteel* case illustrates the difficulties in making all customers accept the selling firm's strategy. This automatically leads us to consideration of the importance of purchasing strategies. Purchasing strategies are important to a selling firm in two quite different ways. Firstly, the customer's purchasing strategies affect the seller's freedom to use a certain marketing strategy. Secondly, the selling company's own purchasing strategy is one of the factors internal to the company which must be compatible with its marketing strategy. The connection between supplier relationships, purchasing strategies, and competitive strength will be further developed in the next section.

RELATIONSHIPS, PURCHASING STRATEGIES, AND COMPETITIVE STRENGTH

We have discussed above how the marketing strategy of a firm is influenced by the purchasing strategies of its customers, as well as by its own purchasing strategies. The first of these influences may be characterized as externally oriented; marketing strategy is defined with respect to customers. The second influence is internally oriented; the focus is upon the seller's own abilities and resources. The former influence — external orientation — has dominated the preceding discussion of the marketing strategies. To obtain an analytical symmetry, an external orientation will be the basis for the purchasing strategies as well. Thus, purchasing strategies will be defined with respect to the problem solving abilities and the transfer abilities of actual or potential suppliers. Perhaps more importantly, the focus on externally oriented purchasing problems — i.e. the nature and availability of actual or potential suppliers enables us to concentrate on strategic purchasing issues which are not just concerned with the selection of suppliers, which might satisfy buyer needs (a somewhat conventional view). Instead, we are concerned with wider strategic purchasing problems, such as the *nature* of the inputs from suppliers which the buyer may require, as well as make or buy decisions, or possibly reorientations of production due to the availability of suppliers with particular competences.

In Figure 6.3, we classify the buying firm's purchasing strategies in a way that is analogous to our classification of marketing strategies. We distinguish between the buyer's problem solving strategy and his transfer strategy. Purchasing strategies are classified with respect to the buyer's exploitation of the supplier's

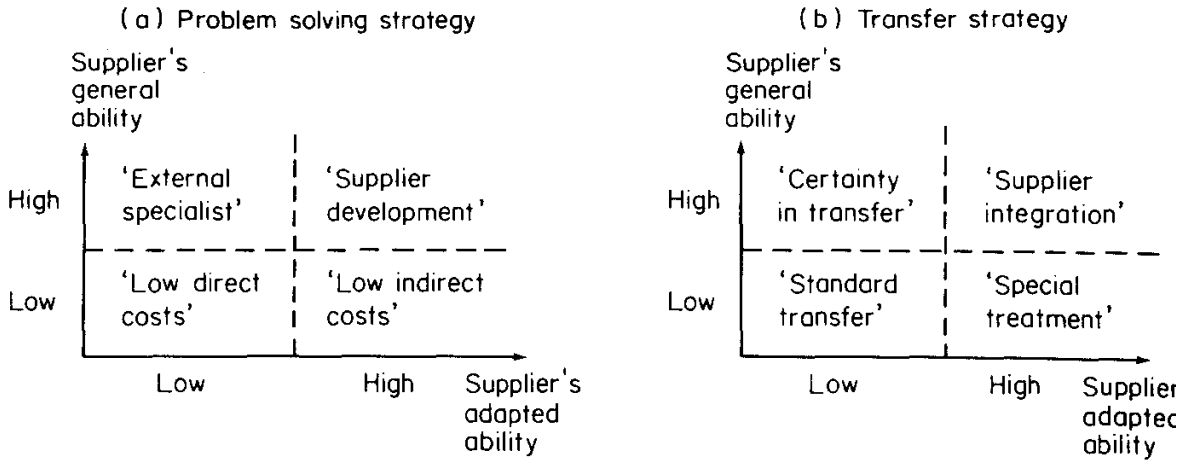


Figure 6.3 Purchasing strategies and supplier relationships

general and adapted abilities. Four problem solving strategies and four transfer strategies are labelled in the two diagrams.

At the end of Chapter 2 we identified two key problems in purchasing: (a) the development of an appropriate supplier structure, and (b) the efficient handling of each supplier relationship. These strategies can be defined both with respect to an external and an internal orientation. When we discuss these strategies we will consider them from the external point of view as well as the internal one. However, the starting point will be the set of available suppliers and the use that can be made of their competence.

A buying firm will normally use different strategies with respect to the suppliers of different inputs. Firms whose production task is located close to the end-market might need a wider range of input goods of different kinds than firms engaged for example, in raw material conversion. This may be reflected in a higher diversity of purchasing strategies in firms of the former kind. Thus, there will be a difference between firms in terms of their `overall purchasing strategy'. In particular, some firms will emphasize low direct costs, while others will emphasize the supplier's role as external specialists, etc. We will now discuss different purchasing strategies against this background and also make some comments regarding the purchasing firm's handling problems in each case.

Purchasing Strategies for Problem Solving

(a) `Low direct costs' This strategy is used when all relevant aspects of the purchasing company's problem are related to the price and to the cost of the exchange. In this case, the buying company will always try to buy where it is cheapest and will not be prepared to pay anything extra for higher quality or technical assistance. One important aspect of this purchasing strategy is to be free to change suppliers whenever there is a price difference. This strategy is useful when the buying firm's need is completely standardized or so similar to other buying firms' needs that there is very little advantage in an adapted product. Thus, the buying firm's handling problems in this case are mainly concerned with

maintaining its freedom and avoiding dependence on individual suppliers. Suppliers having the required competence are most likely to be found in situations where there is a functioning `market'.

(b) *`Low indirect costs'* This strategy is applicable where there are substantial *indirect* costs associated with the purchase. Examples of those indirect costs are in the buyer's own production or handling operations. These costs may be reduced if the buying firm can get the supplier to adapt its product. The purchasing firm's costs are in this situation likely to be more influenced by how effective is co-operation with the chosen supplier than by the initial characteristics of the offering involved (in terms of, for example, price). When the co-operation is effective in this case, then it is difficult and costly for the buyer to change its supplier. The buying firm's handling problems are connected with developing the relationship in such a way that its indirect costs are reduced. Suppliers offering this kind of competence are likely to be found in situations where there are incentives for the supplier to establish long-term buyer relationships.

(c) *`External specialists'* The buying firm seeks suppliers which are specialists within their fields when using this strategy. The firm has problems which are difficult to solve, for example, due to an advanced or complicated production process or advanced products. Additionally, its own marketing strategy might be that of a specialist, and therefore it needs experts as suppliers. Suppliers will be assessed according to their overall abilities. This type of supplier is rather difficult to change, even if there are no supplier adaptations which have been made. The difficulties are due firstly to the fact that there are likely to be few specialists, and secondly, because there is considerable investment involved in supplier and buyer learning about each other. Thus the availability of suppliers with this kind of competence will be of crucial importance with respect to `make or buy' decisions.

(d) *`Supplier development'* Here, the purchasing firm's strategy is to integrate the supplier's resources with its own. The reason for this can be that the buying firm does not have enough resources to cover all the fields that are central to it. Therefore, it has to obtain these from outside, but the resources must be integrated if they are to be used efficiently. After establishing this type of relationship it is very difficult and costly to change it to another. Some of the most important handling problems are to find routines and ways to co-operate which make information exchange between the companies easy but still not too costly. The costs of maintaining the relationship can be substantial and its organization will consequently be important. Again, this strategy requires that there are suppliers avail-able both with high technical competence and with satisfactory organizational abilities.

Purchasing Strategies for Transfer

(a) 'Standard transfer' To use the `standard' strategy for transfer means that

the buying firm is not prepared to pay anything extra for seller abilities greater than `standard'. In this way, the buying firm can get a low price and also the freedom to be able to change suppliers whenever it wants.

(b) *`Special treatment'* Here the aim is to get a special position among the supplier's customers, thereby getting attention when necessary. The special treatment can involve adaptations in the transfer or special attention regarding technical knowledge, technical service, or fast deliveries when needed. The buying firm in this case does not need a supplier which always gives these services, but a supplier that can give them when needed. The difference is, of course, that this type of supplier is likely to be cheaper than one which includes these services in its offering on a regular basis. The handling problems with this type of relationship can either be related to the adaptations themselves or with getting the special attention in the critical situations when it is required. This strategy as well as the preceding one gives the buying firm the opportunity to choose between both `distant' and `close' suppliers (geographically as well as socially).

(c) *`Certainty in transfer'* In situations where the buyer has the need for large quantities of a product that has to be co-ordinated with other inputs or production schedules, it may use a purchasing strategy aiming at transfer certainty. In these circumstances, it wants a supplier that it can rely on, that has punctual deliveries, and constantly good technical assistance. The cost of missing a delivery date may be so large that differences in the price level between suppliers is almost unimportant. It is, of course, possible to change this type of supplier, but it is likely to be a lengthy process as the buyer must be assured of the reliability of any other supplier. Most handling problems in this case are directed towards increasing the level of transfer certainty. Normally, suppliers at a short distance have an advantage in these situations.

(d) *`Supplier integration'* This strategy goes one step further. The buying firm here tries to become integrated with the supplier. The benefits of co-ordinated planning and co-ordinated stocks, together with special attention in technical service, etc., are perceived to be so great that they outweigh any costs involved, both in terms of price and lack of freedom to change suppliers. In fact, the buying firm using this strategy can be expected to refrain completely from the option of changing its supplier. This kind of close co-operation of course must be based upon the availability of firms with high technical competence at a close `social' distance.

In this description of the purchasing strategies, we have not related them systematically to the company's technology, organization, or marketing strategy. Earlier in this book this has been done several times (see for example the introductions to the company cases and some of the themes). These factors, as well as the supply market situation, must be considered when designing purchasing strategy in the same way as with respect to marketing strategy. Thus, purchasing strategy is dependent on:

(a) the degree to which existing suppliers are willing and have the abilities to meet different requirements. This in turn is related to the supply market situation;
(b) the characteristics of the buying company's technology, organization, and marketing strategy.

The second point is, of course, in turn dependent on the purchasing strategy, which means that these factors can be influenced by the purchasing strategy, and *vice versa*. Technology is a very central factor in our view and this is quite natural as we see purchasing and marketing as the link between different technologies. The aim for both sides is to make this link as efficient as possible. Good purchasing and marketing strategies are those which fulfil that aim and the reason why they have to be different depend on the fact that the basic conditions under which they operate are different.

A SYSTEM VIEW

The focus throughout this book has been on the relationships between single pairs of companies. One very important idea in our study is that inter-dependencies between companies are very common in terms of, for example, the development of long lasting relationships. This inter-dependence is due to mutual adaptations in technical, organizational, or knowledge dimensions. The result of this for the whole market system is that it will tend to be rather stable. Instead of free moving units within a market we have companies tied together in a close structure and with very little freedom to move.

Furthermore, if we look at the development over time of this market structure, it is our view that the move is towards increased integration. Chandler (1977) has described how a `visible hand' was already taking over from the invisible hand at the beginning of this century. This process has continued through the growth of large companies and through the integration of separately owned companies into close production and distribution networks. The movement thus, is towards a more `controlled' economy, but this movement is not at all due to political changes. It is instead shaped by the mechanism in the existing system. The basis of this mechanism can be explained in terms of the interaction approach used in this book. The idea of the overall mechanism can also be developed using an interaction approach, but that takes another book .. .

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