

Research paper

Purchase decision making and buyer-seller relationship development in the French food processing industry

Sam Dzever

Mohamed Merdji and

Anne-Laure Saives

The authors

Sam Dzever is at Telemark University College, Norway. He and **Mohamed Merdji** are both Professors, The Nantes Graduate School of Management, Nantes, France. **Anne-Laure Saives** is a Researcher, ENITIAA, Nantes, France.

Keywords

Purchasing, Decision making, Channel relations, Development, Food industry, France

Abstract

Analyzes the nature of purchase decision making and buyer-seller relationship development in the French food processing industry. It is the result of a detailed empirical study undertaken among 30 firms and international suppliers, and part of a larger research project. Intensive face-to-face interviews were carried out with purchasing executives drawn from 30 firms operating in the industry. Confirms the need for suppliers to understand in greater detail factors that buyers regard as decisive in their choice of a supplier as well as those that are pivotal in the development of long-term relationships. A detailed understanding of these factors would aid suppliers in better formulating appropriate market entry and growth strategies in this increasingly competitive environment.

Electronic access

The research register for this journal is available at http://www.mcbup.com/research_registers

The current issue and full text archive of this journal is available at <http://www.emerald-library.com/ft>

Background

The present study analyzes the nature of purchase decision making and buyer-seller relationship development in the French food processing industry. Its objective is to contribute to enhancing knowledge about the buyers' decision process with regard to equipment purchasing as well as the factors they consider essential for developing long-term relationships with suppliers. The study has important managerial implications in the sense that it provides suppliers with the basis for developing appropriate market entry strategies as well as direction as to how they can better develop mutually beneficial long-term relationships with buyers in this market. The paper is divided into seven sections as follows: review of recent developments in the industry and their impact on equipment purchasing and buyer-seller relationship development, review of the literature, objective of the study, research methodology, propositions development, findings and discussion of managerial implications, conclusions and direction for future research.

Review of recent developments in the industry

Food processing constitutes one of France's most important industries. In 1995 it represented approximately 8 percent of the country's gross national product output (Bouquery and Renault, 1996). The industry has witnessed marked changes in recent years, in part, as a result of the common European agricultural policy following market integration and the resulting increased competition from European and international producers. The study focuses on processing activity with respect to three types of products, namely: meat, fish, and vegetables. There has been significant rationalization of activities in this industry in recent years as domestic producers seek to increase efficiency in production methods as a way of enhancing their overall competitive position in the marketplace *vis-à-vis* their foreign counterparts (Rastoin, 1995; Lambert, 1997). These rationalization drives have led to significant investment in equipment purchasing in recent years both in terms of

new acquisitions and replacement products (i.e. *new task*, *modified rebuy*, and *straight rebuy* purchase classes (see Robinson *et al.* (1967) *buygrid model*)[1]. Different studies (GEM, 1992; DAFSA, 1995) show, however, that there is a structural weakness in the French equipment manufacturing industry despite an increasing demand rate connected with the continuous development of the French food processing industry. This study is thus concerned with an analysis of the nature of the decision process of buyers in this industry as they review product offerings from different supply sources (i.e. local, European, and international) as well as the criteria they regard as essential in developing mutually beneficial long-term relationships with suppliers. Data for the study was collected by means of intensive face-to-face interviews with purchasing executives from 30 firms (of all sizes) operating in the industry. The products were, as earlier mentioned, various types of equipment[2] and relate to whether they were new acquisitions, upgrades, or simply replacements of the existing ones.

Review of the literature

The study of purchase decision making and buyer-seller interaction and relationship development occupies a central place in purchasing and supply as well as business-to-business marketing literature. A number of variables have been selected which constitute the basis of such studies. These are generally grouped in accordance with whether they relate to the vendor, the product, or the purchasing organization.

Vendor's variables have generally included:

- dependability;
- service;
- technical ability;
- financial strength;
- geographical location; and
- reciprocity history (Dickson, 1966; Sheth, 1972; Hill *et al.*, 1975; Corey, 1976; Hill and Hillier, 1977; Webster and Wind, 1988; Dzever, 1993a,b, 1995, 1996).

Product variables include:

- price;
- quality; and

- purchase class (i.e. new task, modified rebuy, and straight rebuy).

Research in this area has included the work of Robinson *et al.* (1967), Lehman and O'Shaughnessy (1974), Dzever (1993a, b, 1995, 1996), Dzever and Quester (1999), Chetty *et al.* (1999). Purchasing organization variables often include: size and formality of decision-making, motives, type of choice process, risk preference or avoidance, past experience with vendor (Wind, 1971; Webster and Wind, 1972; Sweeney *et al.*, 1973; Hill *et al.*, 1975; Baker, 1983, 1985). With increasing globalization of economies more recent studies have also included variables such as culture (Carter and Narasimhan, 1990; Kaynak and Kucukemiroglu, 1992; Chang and Ding, 1995; Deng and Wortzel, 1995; Davis *et al.*, 1995; Mummalaneni *et al.*, 1996; Dzever, 1997; Dzever and Zhengyi, 1999).

As a corollary to this development, research has in recent years also focused on better understanding the impact of buyer-seller relationships on the purchase decision process of organizational buyers. Beginning with the work of Ford (1978), the International Marketing and Purchasing (IMP) Group developed an *Interaction* methodology (Håkansson, 1982) that has since brought to bear a new perspective in studying these issues from an empirical point of view. The approach, based on data from several European firms, was regarded as revolutionary since, for the first time, it was understood that organizational buyers value, to a great extent, the nature of relationships they develop with suppliers. Suppliers were no longer seen simply in terms of sellers of products but rather as partners in business since it was only through this partnership that purchasers could achieve their objective of developing products with the best quality standards while at the same time ensuring customer satisfaction. Buyer-seller interaction thus became one of the most important determinants of supplier selection.

Attempts have also been made to model organizational buyer behavior based on the knowledge of purchase decision process and supplier selection criteria for both new and replacement products. Dzever (1996) has identified three main approaches in the

literature as imperative for this development. These are:

- marketing as exchange;
- organizational purchasing behavior; and
- interaction perspective.

Of these, four groups of models have been further identified within the organizational purchasing behavior approach as:

- task-oriented;
- non-task-oriented;
- decision process; and
- complex models (Moriarty, 1983; Webster and Wind, 1972; Robinson *et al.*, 1967).

Task-oriented models are, in general, concerned with situation specific factors associated with a particular purchase, while the non-task ones are, in general, based on risk perceptions or on the notion of diffusion of innovation (Bauer, 1960; Zaltman *et al.*, 1973). Decision process models are generally concerned with a description and analysis of the decision process involved in organizational purchasing. This category of models was first proposed by Cyert and March (1963) in which the authors identified three main processes regarded as central in organizational purchasing. These are:

- (1) routine process;
- (2) communication process; and
- (3) problem-solving process.

Webster (1969) further expanded on these to include the following factors:

- problem recognition;
- organizational assignment of purchasing responsibility and authority;
- search procedure for identifying product offerings;
- establishment of selection criteria; and evaluation procedure for alternative product offerings.

Robinson *et al.* (1967) further modified these processes in their well known *buygrid* model. The *buygrid* model was further expanded upon by Baker (1983, 1985) in his “composite model” of buyer behavior. Complex models of organizational purchasing and buyer behavior vary greatly, from being highly conceptual to those that emphasize practical operation. Among the most frequently cited the following deserve a particular mention: Robinson *et al.* (1967),

Webster and Wind (1972), Sheth (1972), Bonoma *et al.* (1977), Choffray and Lilien (1978), and Anderson *et al.* (1987).

Perhaps one of the main shortcomings of a great number of the models reviewed is their general inability to sufficiently address the problem of organizational purchasing from an interactive perspective. Apart from the IMP Group model, nearly all of the models reviewed assume that interaction with potential vendors has no significant bearing on buyers’ decision process and supplier selection. This is rather important particularly in the light of the fact that it is today generally acknowledged that organizational purchasing is a complex and multidimensional activity encompassing many factors, a significant number of which cannot be sufficiently appreciated without a careful consideration of the nature of interaction and relationship development between buyers and sellers in a given business market. In the present paper we argue that this fact is among the most important determinants in supplier selection.

Purchase decision process of organizational buyers has become increasingly complex as the traditional role of the purchasing executive has significantly changed over the past few years as organizations increasingly globalize their sourcing activities. Because of this, purchase decisions of buyers have become increasingly a more complex, multidimensional, and multifunctional activity involving not only members of the purchasing organization’s Decision Making Unit (DMU) but a host of other important players, on a global basis, such as intermediaries (trading companies, independent purchasing agents, consultants, and so on). Such intermediaries are often very familiar with decision routines of both the purchasing and the supplying organizations and very often facilitate in developing close interactive relationships between these on a long-term basis. In other words, a better understanding of purchasers’ decisions often calls for a thorough understanding of the role of supply chain management in the entire decision process. It is thus clear that models of organizational purchasing and buyer behavior must take full account of this development.

Dzever (1996) has proposed an empirical model that helps explain the most important factors impacting the decision process of organizational buyers. This model together

with the IMP Group's interaction model constitute the theoretical basis for the present paper. Several factors have been identified in the Dzever model which are said to impact supplier selection decisions of organizational buyers. These factors (which are both of a firm – specific nature as well as environmentally determined) include: the composition and functional specialization of the members of the DMU, patterns of buyer-seller interaction and relationships, the role of intermediaries in the decision process, and the impact of environmental factors such as market structure, technology, economic, and culture on these decisions. Moreover, purchase decisions are also influenced by three dimensions of buyer behavior identified in the model as technical, commercial, and social (Dadfar, 1990; Dzever, 1996). It is thus by having a correct understanding of these factors that one can fully appreciate the decision process of organizational buyers in a wider perspective.

Objective of the study

Little is known about the purchase decision process of organizational buyers in the French food processing industry. This is particularly the case with regard to the three areas of activities with which the present study is concerned. As competition from European and international producers intensifies, French producers are increasingly being faced with the choice of either to significantly rationalize processing methods or risk going out of business altogether. In most cases rationalization means a heightened program of equipment purchasing as producers increase their investment in automation and more efficient production methods. The industry has thus seen a significant increase in equipment procurement during the past few years.

The overall objective of this study can be said to be two-fold:

- (1) to investigate and produce knowledge about the nature of the purchase decision process of buyers in this industry and the most important factors determining their choice of a supplier; and
- (2) to contribute to enhancing knowledge about the most important factors

determining the nature of buyer-seller relationships in the industry.

The study is also of practical relevance in the sense that it hopes to provide managers with a better basis for formulating appropriate market entry and growth strategies in this increasingly important European market.

Research methodology

As earlier indicated, the theoretical framework upon which the study is based are the models of organizational purchasing behavior (Dzever, 1995, 1996) and the IMP model of buyer-seller interaction and relationship development (Håkansson, 1982). The models advanced by Dzever identify different stages in the decision process by buyers, the impact of environmental factors (such as market structure, technology, economy, and culture) on the process, the role of intermediaries (such as trading companies, manufacturer's representatives, consultants, and so on) in the process, and the nature of buyer-seller interaction and relationship development in industrial markets. In addition, the models propose three dimensions of industrial purchasing behavior identified as:

- (1) technical;
- (2) commercial; and
- (3) social dimensions.

The theoretical assumptions of the models are in line with the postulations of Dadfar (1990) who suggests that we can better understand the behavior of industrial buyers by looking closely at these dimensions. Based on these models and a procedure developed by the French *Enquête Annuelle d'Entreprises (EAE)* a face-to-face interview guide was developed and arrangements were made to meet with 33 executives drawn from 30 purchasing organizations in the concerned processing activities. The *EAE* statistics of 1995 show that these firms are among the 80 percent of companies that are known to regularly purchase various types of equipment from both European and foreign suppliers (Merdji *et al.*, 1998). An overview of the respondent firms in terms of three processing activities is shown in Table I.

Table I Overview of respondent firms in terms of three processing activities

Processing	<i>n</i>
Meat	15
Fish	11
Vegetable	4
Total	30

The duration of interviews with each respondent organization varied but was generally between one and two hours. All interviews were recorded on tape. The sessions focused particularly on the following issues:

- the structure of the respondent organization;
- its principal products, markets, and strategy;
- its most recent equipment purchases; and
- its purchase decision policy.

Based on these factors, criteria for purchase decision process and supplier relationship development can be obtained. These are:

- A: typology of the purchasing needs of the organization.
- B: typology of its purchase decision process.
- C: typology of its supplier relationship development.

As can be seen, these represent the purchasing organization's:

- need for recognition (for a new or replacement product);
- its decision process for the procurement of this product; and
- the nature of relationship it wishes to develop with suppliers.

Based on these criteria typologies of the organization's investment needs, the different phases in its purchase decision process, its supplier selection procedure, and criteria for developing relationships with suppliers can be obtained.

A typology of investment needs of the purchasing organization is as follows:

- (1) new and replacement products;
- (2) development products;
- (3) major investment products;
- (4) environmental, security, health, social (ESHS) products.

Four product categories have been identified. These represent the different areas in which the organization has different types of

investment needs. The purchasing organization generally has the greatest of needs for new and replacement equipment. It is an investment that is also the most frequent and represents less efficient as well as obsolete equipment. This is particularly the case in the meat processing sector and less so in the fish and vegetables ones. This type of investment is budgeted on an annual basis and is of an incremental nature. It represents one-third of the total equipment purchasing investment. When an existing equipment needs replacement the purchasing organization would generally not seek to merely replace it with, for example, a more modern version of an existing model but would rather try to find a product that represents significant improvements (both in terms of technology and performance) on the existing one. Replacement products are generally characterized by cutting-age technology and a very high degree of performance efficiency. It is for these reasons that the costs of this category of products are generally incremental on an annual basis.

Development products on the other hand represent the establishment of new production lines for the purchasing organization. This category of products represent approximately a quarter of the investment needs in the meat-processing sector. Capital products represent approximately one-fifth of the investment budget in the meat processing industry. These very often occur in connection with factory extensions, new factory constructions, factory renovations (for the purpose of, for example, meeting new health standards), and so on. They are generally less frequent and often have a planning period of between two and three years. The ESHS investments are generally carried out in line with policy requirements in the areas of labor security, health, and pollution control legislation. Investments of this nature are generally divided into many parts (often between five to six major parts). ESHS products represent approximately one-sixth of the total investments needs in the three sectors studied.

There are 12 phases which represent a complete circle of the decision process for equipment purchasing in the three sectors:

- (1) need recognition/idea generation;
- (2) information gathering;
- (3) consultation (with potential suppliers);

- (4) establishment of order routine;
- (5) establishment of tenders;
- (6) product selection (in accordance with phase 4);
- (7) pre-trials (of the selected products);
- (8) filtration (of the short list of suppliers);
- (9) oral presentation (at supplier level);
- (10) oral presentation (at buyer level);
- (11) manufacturing (of the selected product);
- (12) after-sales follow-up.

Phase 1 represents the recognition of need for a product by the purchasing organization as well as the generation of ideas as to how it could be procured. These ideas could be generated from both the Production and R&D departments of the purchasing organizations (approximately 20 percent of the organizations studied) as well as from current and potential suppliers (approximately 80 percent). The information-gathering phase comprises principally a search for and qualification of possible supply sources. This is generally initiated by an expert team within the purchasing organization but may also comprise persons outside the organization and whose expertise it needs in the search effort. The team then uses various databases, trade directories, personal contacts, and so on to gather the necessary information. The consultation phase involves making contact with a limited number of suppliers whose products have the potential of satisfying the purchasing organization's identified needs. Only about eight to ten such suppliers are generally contacted. Phase 4 involves the establishment of an order routine for the identified need, while phase 5 is primarily concerned with a call for tenders. Tenders of this nature are primarily for generic products. Phase 6 involves the selection of suppliers who have the potential to meet the requirements as specified in the order routine (phase 4). Phase 7 is the pre-trials of the selected equipment, the purpose being to establish some form of guarantees with respect to performance, and so on. In phase 8 the selected potential suppliers are presented to the requisite departmental heads of the purchasing organization. These often include: the financial manager, production manager, maintenance manager, R&D manager, marketing manager, and so on. This "filtration" phase also involves the final

selection of suppliers. Phase 9 is primarily concerned with verification of conformity of the selected equipment relative to the established order routine (phase 4).

Necessary modifications to the equipment are carried out at the supplier's premises at this stage. Implementation tests of the equipment (in line with the established order routine) are carried out in phase 10 at the purchasing organization's premises. The buyer would often demand the presence of the supplier's appropriate technicians. Phase 11 is concerned with installation of the equipment on the purchaser's production line. The final verifications of the performance of the equipment are also carried out at this stage. After-sales follow-ups are carried out at the final phase of the decision process. These generally involve after sales services, training of operators, delivery of manufacturing plans, manuals, spare parts, technical advice, and so on. These follow-ups are necessary and very useful to the purchasing organization in terms of planning future procurements.

The purchasing organization's board criteria for supplier selection are:

(1) Technique:

- supplier's technical know-how;
- product's cleanliness;
- security;
- product's ergonomic qualities;
- product's flexibility of operation;
- product's level of noise emission;
- product's operating costs;
- product's simplicity of operation;
- automation;
- optimization of the product's capacity;
- supplier's experience.

(2) Product conception:

- supplier's engineering capacity;
- innovation;
- product and process knowledge;
- listening ability;
- need identification ability;
- knowledge of applicable regulations;
- adaptability.

(3) Geographical proximity:

- flexibility;
- cultural understanding;
- dialogue.

(4) Commerical capacity:

- supplier flexibility;
- reaction to demand;

- respect for deadlines (tender bids, delivery, installation);
 - negotiation capacity;
 - price;
 - trust.
- (5) Contractual relationship:
- partnership;
 - loyalty;
 - confidentiality;
 - exclusive rights;
 - ability to maintain commercial relations.
- (6) Image:
- references;
 - supplier's reputation and notoriety;
 - supplier's financial situation.
- (7) Technical service:
- transparency of plans and manuals;
 - provision of spare parts by the supplier;
 - technical advice;
 - after-sales services;
 - supplier availability.

There are seven criteria and it is important to note that these criteria are by and large interrelated. Each criterion contains a specific set of factors that are important for supplier evaluation at the different phases of the decision process. These factors are by and large self-explanatory and do not need further clarification here.

The last typology deals with equipment supplier profiles and is:

- (1) The big international groups:
- highly structured;
 - significant R&D, marketing, communication, and after-sales services;
 - internationally established product catalogues.
- (2) Sectorial specialists:
- functional specialization;
 - R&D engineering;
 - supply in accordance with established catalogues;
 - product adaptation;
 - after-sales services.
- (3) Small-scale local suppliers:
- high competency for products adapted to specific buyer needs;
 - specialize in "special installations" (e.g. "metal works") and machines (e.g. "automatons").
- (4) Professionals of used equipment:

- specialize in product upgrades and resale.

Understanding the profile of suppliers has important implications for the nature of relationships they wish to develop with buyers in this market.

As we can see from the above list, suppliers can generally be divided into four main categories. Each category of suppliers has different criteria for developing relationships with buyers due to the nature of its particular activity. The big international groups are highly structured in their R&D, marketing, communication, and after sales services activities. They generally supply in accordance with internationally established product catalogues. These organizations generally tend to have a preference for buyers with similar business philosophy in developing long-term relationships. The sectoral suppliers do tend to be functional specialists such as research and development, engineering, and so on. They tend to supply in accordance with published catalogues, but unlike the big international groups, are willing to adapt products to specific buyer requirements. They also have comprehensive after-sales services for buyers. These are also the criteria determining the nature of relationships they wish to establish with buyers in this market. The next category is the small-scale local suppliers, the so-called "small makers". They tend to have particular competency in adapting products to specific buyer domains, establish "technical studies" offices in close proximity to buyers. They also tend to specialize in particular installations such as "metal working" as well as special machines/production lines. Relationship development activities of these suppliers generally tend to favour buyers operating in their particular areas of specialization. The last category of suppliers are the specialists of used equipment. Their activities are generally focused on restoration, upgrade and resale of used equipment. Their buyer-seller relationship development activities generally tend to have a bias toward buyers with a preference for these types of equipment.

The five typologies outlined above, together with other factors earlier mentioned, constituted the basis for the development of the data collection instrument – the interview guide.

As we indicated earlier, companies operating in the processing activities under study were generally known to have invested significantly in enhancing production efficiency during the past few years. Tables II and III provide an overview of the extent of this investment.

Respondents in the chosen organizations comprised primarily purchasing specialists responsible for specific product categories. In the larger organizations these held the positions of “technical director” or “director of industrial development”. It is important to note furthermore that in these types of organizations, purchasing directors (or managers) were primarily in charge of purchasing consumable products, raw materials, and packaging. In the less-structured small and medium-sized companies, purchasing activities were essentially the responsibility of either the managing director or, in some cases, the

director of quality inspection. Fish processing activity is relatively recent in France. Apart from companies in the more traditional activities (e.g. fish canning) where respondents held the position of technical director, most of the interviewees held the following responsibilities: managing director, director of production, production manager, R&D manager, product quality manager, and maintenance manager. This sector has witnessed significant competition from North European (particularly Norwegian and Icelandic) producers in recent times as they seek to use the French market as a basis for expanding their presence throughout the European market.

Figure 1 provides a summary of the functional responsibility of the respondents across all three activities.

Propositions development

Based on the preceding problem definition, study objectives, review of the literature, research methodology, and criteria for developing relationships with suppliers

Table II Investment distribution in the meat, fish, and vegetables processing industry

Tangible investment	Average investment per enterprise (million French francs)	Total of tangible investment (million French francs)	Of which technical installations and equipment (million French francs)
Meat	1,732	982	428.4
Poultry	2,782	673.3	338.6
Cooked (pork) meats	2,830	1,822.6	988.4
Fish	2,825	466.2	240.6
Canned vegetables	6,700	688.1	386.4

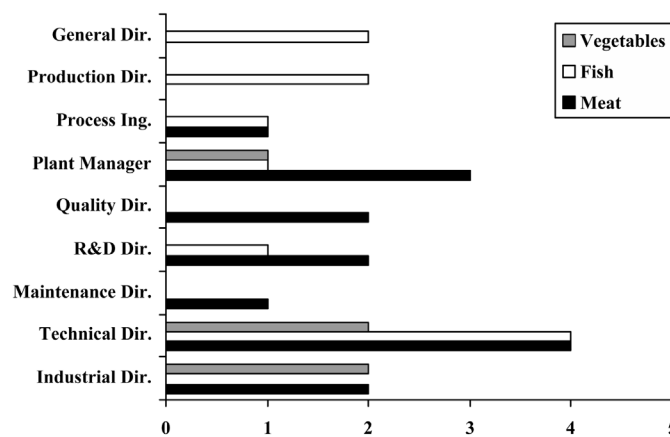
Source: Merdji *et al.* (1998)

Table III Investment distribution by firm size

Firm size No. of workers	Tangible investment: average/enterprise (million French francs)			Investment for equipment (million French francs)		
	Meat	Fish	Fruits and vegetables	Meat	Fish	Fruits and vegetables
10-19	0.3	0.8	0.6	53	17.4	21.2
20-49	1.1	1.3	2.6	309.4	53.5	119.3
50-99	2.2	1.8	8.0	223	14.8	99.5
100-199	4.5	8.9	9.6	292.9	49.5	95.9
200-499	9.8	n.a.	19.4	382.9	n.a.	253.9
Over 500	25.8	n.a.	32.2	494.3	n.a.	111.3
Total				1,755.5	240.6	700.8

Source: Merdji *et al.* (1998)

Figure 1 Functional responsibility of the respondents



already shown, the following propositions have been developed as the basis for our work:

- P1.* Technical criteria play an important role in supplier selection for new and replacement equipment in the French food processing industry. These relate particularly to the following: product conception and development know-how, product automation, product's aesthetics features, product's ergonomic quality, product's simplicity of operation, product's optimization capacity, product's low noise emission, product's adaptability to specific buyer needs, product's durability, storage and production space occupied by the product, supplier's technical service to the buyer, supplier's innovativeness in product design, and supplier's capacity for volume supply.
- P2.* Commercial criteria play an important role in supplier selection for new and replacement equipment in the French food processing industry. These relate particularly to the following: price, after-sales service, warranty, contract terms, supplier's image (notoriety, reputation, financial situation, and references) in the marketplace.
- P3.* Buyer-seller relationship is an important criterion in supplier selection for new and replacement equipment in the French food processing industry. This relates particularly to the following factors: cultural understanding, buyer-seller dialogue, supplier's ability and willingness to develop partnership with

buyers, loyalty, confidentiality, exclusivity of supply, delivery schedules, respect for deadlines (during tender bidding).

Below are the study's main findings, followed by a discussion of their managerial implications.

Findings and managerial implications

Tables IV-VI provide a summary of the study's findings relative to the three propositions outlined above. *P1* deals with the importance of technical criteria in supplier selection for both new and replacement equipment, the findings of which are outlined in Table IV. As can be seen purchasing organizations across all three processing

Table IV The importance of technical criteria in supplier selection for new and replacement equipment

Criteria	Industry		
	Meat	Fish	Vegetables
Product conception know-how	a	a	a
Automation	a	b	b
Product's aesthetic features	b	b	b
Ergonomic quality	a	a	b
Simplicity of operation	a	a	a
Optimization of product's capacity	b	c	b
Low noise emission	a	b	a
Adaptability to specific buyer needs	a	a	a
Technical service	a	a	a
Durability	a	a	a
Supplier innovation	c	b	a
Capacity for volume supplies	b	c	b
Space occupied by the product	b	b	c

Notes: Notes: ^a = extremely important, ^b = very important, ^c = important

Table V The importance of commercial criteria in supplier selection for new and replacement equipment

Criteria	Industry		
	Meat	Fish	Vegetables
Price	a	a	b
After-sales service, supplier availability	b	a	b
Warranty	a	a	a
Contract terms	a	a	a
Supplier's image in the marketplace	a	a	a

Notes: Notes: ^a = extremely important, ^b = very important, ^c = important

Table VI The importance of buyer-seller relationship development in supplier selection for new and replacement equipment

Criteria	Industry		
	Meat	Fish	Vegetables
Cultural understanding	b	b	d
Buyer-seller dialogue	b	a	b
Buyer-seller partnership	a	a	a
Loyalty	a	a	a
Confidentiality	c	a	b
Exclusivity of supply	b	b	b
Delivery schedules	a	a	a
Respect for deadlines	a	a	a

Notes: ^a = extremely important, ^b = very important, ^c = important, ^d = not important

activities indicated that the following criteria were extremely important in their choice of a supplier: product conception and development know-how, product's adaptability to specific buyer needs, technical service provided by the supplier, and product's durability. Next to these was product's ergonomic quality (with buyers in the meat and fish processing sectors indicating that it was extremely important in supplier selection, while those in the vegetables sector noted that it was a very important criterion). Product's low noise emission had the same ranking as ergonomic quality (with buyers in the meat and vegetables sectors ranking it as extremely important and those in fish sector indicating that it was very important). Next is product automation (with the ranking extremely important in the meat sectors and very important in the fish and vegetables sectors). Product's aesthetic qualities had the ranking of very important for supplier selection across all three processing sectors. Optimization of product's capacity was ranked as very important in meat and vegetables sectors but only important in the fish sector. Supplier

innovation in product conception and design was considered extremely important by buyer in the vegetables sector, very important in the fish sector, and important in the meat sector. Supplier's capacity for volume supplies was said to be very important by buyers in the meat and vegetables sectors, but only important by those in the fish sector. Finally, the degree of space (storage and production line) occupied by the product was said to be very important to buyers in the meat and fish processing sectors (this group of buyers clearly preferred compact or miniaturized products which in their eyes represented new technology to bulky or large-sized products which they saw as largely outdated), but only important to those in the vegetables sector.

On the whole then the following groups of technical criteria for supplier selection are clearly discernible from Table IV:

(1) *Group 1:*

- supplier's technical know-how (product conception and design);
- product's simplicity of operation;
- adaptability of product to specific buyer needs;
- supplier's technical service to the buyer;
- product's durability (i.e. performance relative to its purchase price and life cycle).

(2) *Group 2:*

- product's low noise emission;
- product's ergonomic qualities;
- product automation;
- supplier's innovation in product conception, design and operation.

(3) *Group 3:*

- product's aesthetic qualities;
- optimization of product's capacity;
- supplier's capacity for volume supplies;
- storage and production line space occupied by the product.

Categorizing these selection criteria in groups is particularly useful as it would help suppliers better plan their market entry and relationship development strategies for this increasingly competitive market.

From these results we can say that *PI* is supported. However, the importance of these criteria varied with respect to the different sectors of activity (with the exception, of

course, to those listed in Group 1 which apply equally across all three processing activities).

Next to the technical criteria for supplier selection are the commercial ones. These are presented in Table V. As can be observed, buyers from all three processing sectors considered warranty, contract terms, and supplier's image in the marketplace to be extremely important in their choice of a supplier. Next to these is price. Purchasing organizations in the meat and fish sectors indicated that it was an extremely important criterion, while those in the vegetables sector said that it was very important. After-sales service together with supplier's availability when needed was ranked by buyers in the fish sector as an extremely important commercial criterion for supplier selection, while those in the meat and vegetables sectors ranked it as very important. In terms of groups, the following are clearly discernible:

(1) *Group 1:*

- warranty;
- contract terms;
- supplier's image in the marketplace.

(2) *Group 2:*

- price;
- after-sales service.

Based on these findings we can say that *P2* is also supported. However, the findings also demonstrate that the most important commercial factors buyers use in selecting suppliers appear to be warranty, contract terms, and suppliers image in the marketplace. Price and after-sales service appear to be of secondary importance in supplier selection.

P3 deals with the importance of buyer-seller relationships in selecting suppliers. In particular, the study wishes to test to what extent the following factors can be said to be important in determining the nature of these relationships: supplier's cultural understanding, buyer-seller dialogue, supplier's willingness and capability in developing mutually beneficial partnership with buyers, loyalty, confidentiality, exclusivity of supply, respect for agreed delivery schedules, and respect for deadlines during tender bidding.

The results presented in Table VI show that buyers across all three sectors considered that buyer-seller partnership, loyalty, respect for

agreed delivery schedules, and respect for deadlines during tender bidding were the four most important factors in developing buyer-seller relationships of a long-term nature.

Next to these were: buyer-seller dialogue (with buyers in the fish sector indicating that it was extremely important, while those in the meat and vegetables sectors saying that it was very important); confidentiality (with buyers in the fish processing sector indicating that it was extremely important, those in the vegetables sector noted that it was very important, and their counterparts in the meat sector indicated that it was simply important). Buyers across all three sectors noted that exclusivity of supply was a very important criterion in developing long-term relationships with suppliers. Cultural understanding appears to be ranked last in this category. Buyers in the meat and fish sectors indicated that it was an important criterion, while their counterparts in the vegetables sector simply did not see the importance of it at all in developing long-term relationships with suppliers.

In terms of groups, the following are discernible:

(1) *Group 1:*

- buyer-seller partnership;
- loyalty;
- respect for delivery schedules;
- respect for deadlines during tender bids.

(2) *Group 2:*

- buyer-seller dialogue;
- confidentiality.

(3) *Group 3:*

- exclusivity of supply;
- cultural understanding.

From the above it can be said that *P3* is largely supported. However, contrary to our postulations factors such as cultural understanding and exclusivity of supply were ranked relatively lower than was expected. Factors which appear to be most central to buyers across all three categories of activities in developing long-term relationships with suppliers are those listed in Group 1. Those in Groups 2 and 3 follow these respectively.

The findings have important managerial implications. For the first time it has been demonstrated, from an empirical point of view, which factors organizational buyers in

the French food processing industry consider to be the most important in selecting suppliers of new and replacement equipment. Some of these findings are rather surprising. For example, contrary to popular opinion that the French generally value language and cultural similarity highest when dealing with foreign businesses, our study has demonstrated that the opposite is actually the case. Cultural understanding is, of course, important to the French (as it is to any other group of people when it comes to dealing with foreign businesses) but our findings have demonstrated that it is no where as important as popular opinion would have it, or even as was postulated in this study.

Consequently, what is extremely important for foreign suppliers of equipment wishing to get a foothold into this market is to evaluate carefully which factors buyers here consider to be the most decisive in their choice of a supplier. These are of both technical and commercial in character and relate to new as well as replacement equipment. In addition, foreign suppliers must also consider carefully factors French equipment purchasers consider to be the most important in developing long-term business relationships with suppliers. The most central of both categories of factors must then be incorporated in the supplier's market entry and growth strategies. Once they are fully equipped with these tools, coupled with the nature and level of their commitment to developing the market, they'll then be ready to take that first tentative step towards gaining full access to this vast but increasingly competitive market.

Conclusions and direction for future research

The overall concern of this study has been to investigate and produce knowledge about the nature of the purchase decision process and buyer-seller relationship development in the French food processing industry. *P1-P3* were developed and analyzed against empirical data obtained from 30 firms across three sectors of the industry, namely: meat, fish, and vegetables processing. The findings show which factors equipment purchasers consider to be the most important in supplier

evaluation and selection process, as well as relationships development. Seen from this perspective the study can be said to have made a small contribution towards enhancing our overall understanding of these matters. However, it is also limited in areas that need a special mention here. First of all the sample of respondents in the survey was rather limited (a total of 30 firms across the three processing activities) to constitute a robust basis for generalization. Accordingly, further work drawing on a much larger sample of respondents from different geographical regions of the country would go a long way in strengthening the research base. A study of this nature would certainly be interesting and help shed further light on these issues. Second, the study was also limited by the method of data collection. Case study approach is interesting but rather exploratory in character. Further work in this regard would certainly benefit from a more quantitative research design, thus enabling a more robust approach to data collection and analysis. Third, categorization of data in terms of the country-of-origin of suppliers would provide a better overview of product acceptance and market entry strategies of suppliers on a global basis. An analysis of this nature would be very useful for suppliers that are in the process of planning their market entry strategies and relationship development with potential buyers. These and other matters constitute the most central issues to be addressed in the next phase of the research.

Notes

- 1 A detailed description of the nature and extent of this investment is provided later in the paper.
- 2 Such as: slaughter equipment, preparation equipment, equipment for crushing, grinding, fragmentation, separation, mixing, moulding and forming, heating, cooking, refrigeration and freezing, titration, weighing, counting, packaging, assembling, wrapping, marking, labelling, handling, storage; and general equipment such as: automation, regulation, metal working, air conditioning, ventilation, compressors, energy production, cooling equipment, environmental equipment, thermal insulation, washing, cleaning, disinfectant equipment, and complete lines and turn-key factories (GEM, 1995).

References

- Anderson, E., Chu, W. and Waiz, B. (1987), "Industrial purchasing: an empirical explanation of the buyclass framework", *Journal of Marketing*, Vol. 51, pp. 71-86.
- Baker, M.J. (1983), *Market Development: A Comprehensive Survey*, Penguin Books, London.
- Baker, M.J. (1985), *Marketing Strategy and Management*, Macmillan, London.
- Bauer, R.A. (1960), "Consumer behavior as risk taking, in Hancock, R.S. (Ed.), *Dynamic Marketing for a Changing World*, American Marketing Association, Chicago, IL.
- Bonoma, T.V., Zaltman, G. and Johnston, W.J. (1977), *Industrial Buying Behavior*, Monograph, Marketing Science Institute, Cambridge, MA.
- Bouquery, J.M. and Renault, C. (1996), *Les Industries Agroalimentaires. Enjeux, Perspectives et Stratégies des Acteurs*, Tome I, AND, Les Echos Editions, Paris.
- Carter, J.R. and Narasimhan, R. (1990), "Purchasing in the international market place: implications for operations", *Journal of Purchasing and Materials Management*, Summer, pp. 2-11.
- Chang, K. and Ding, C.G. (1995), "The influence of culture on industrial buying selection criteria in Taiwan and mainland China", *Industrial Marketing Management*, Vol. 24, pp. 277-84.
- Chetty, S., Dzever, S. and Quester, P. (1999), "Country of origin perception and industrial purchase decision-making in New Zealand", *European Journal of Purchasing and Supply Management*, Vol. 5, pp. 185-96.
- Choffray, J-M. and Lilien, G. (1978), "Assessing responses to industrial marketing strategy", *Journal of Marketing*, Vol. 42.
- Corey, E.R. (1976), *Industrial Marketing: Cases and Concepts*, Prentice-Hall, Englewood Cliffs, NJ.
- Cyert, R.M. and March, J.G. (1963), *A Behavioural Theory of the Firm*, Prentice-Hall, Englewood Cliffs, NJ.
- Dadfar, H. (1990), *Industrial Buying Behavior in the Middle East: A Cross National Study*, Linköping University.
- DAFSA, (1995), "Machines pour les industries agroalimentaires", *Collection Profils Sectoriels*, Vol. 10.
- Davis, H., Leung, T.K.P., Luk, S.T.K. and Wong, Y.-H. (1995), "The benefits of 'Guanxi': the value of relationships in developing the Chinese market", *Industrial Marketing Management*, Vol. 24, pp. 207-14.
- Deng, S. and Wortzel, L.H. (1995), "Importer purchase behavior: guidelines for Asian exporters", *Journal of Business Research*, Vol. 32, pp. 25-34.
- Dickson, G.W. (1966), "An analysis of vendor selection systems and decision", *Journal of Purchasing*, Vol. 2, pp. 5-17.
- Dzever, S. (1993a), "An empirical study of industrial purchasing practices in Japan", *Les Cahiers de Recherche du CREA*, No. 17, pp. 2-20.
- Dzever, S. (1993b), "Towards an integrated conceptual model of organizational buyer behaviour analysis", *ENBS Academic Review*, No. 2, pp. 6-23.
- Dzever, S. (1995), "Japanese trading companies and their impact on industrial buying in Japan", *Japan in Extenso*, No. 35, pp. 37-51.
- Dzever, S. (1996), *Le Comportement d'Achat Industriel (Industrial Buying Behavior)*, Economica, Paris.
- Dzever, S. (1997), "Industrial procurement practices of Taiwanese firms in the Chinese market", in Dzever, S. and Jaussaud, J. (Eds), *Perspectives on Economic Integration and Business Strategy in the Asia-Pacific Region*, Macmillan and St Martin's Press, London and New York, NY, pp. 172-86.
- Dzever, S., and Quester, P. (1999), "Country-of-origin effects on purchasing agents' product perceptions: an Australian perspective", *Industrial Marketing Management*, Vol. 28, pp. 165-75.
- Dzever, S. and Zengyi, W. (1999), "Industrial distribution channels in the People's Republic of China market", in Dzever, S. and Jaussaud, J. (Eds), *China and India: Economic Performance and Business Strategies of Firms in the Mid-1990s*, Macmillan and St Martin's Press, London and New York, NY, pp. 113-29.
- Ford, I.D. (1978), "Stability factors in industrial marketing channels", *Industrial Marketing Management*, Vol. 4 No. 6, pp. 410-22.
- GEM, (1992), *Le Secteur de l'Équipement Agroalimentaire, Analyse Quantitative*, September, GEM, Paris.
- GEM, (1995), *Annuaire des Constructeurs Français de Matériels pour les Industries Agroalimentaires*, 2nd ed., GEM-ADEPTA-AGRA-ALIMENTATION, Paris.
- Håkansson, H. (Ed.) (1982), *International Marketing and Purchasing of Industrial Goods: An Interaction Approach*, John Wiley & Sons, New York, NY.
- Hill, R. and Hillier, F. (1977), *Organizational Buyer Behaviour*, Macmillan, London.
- Hill, R.M., Alexander, R.S. and Cross, J.S. (1975), *Industrial Marketing*, 4th ed., Irwin, Homewood, IL.
- Kaynak, E. and Kucukemiroglu, O. (1992), "Sourcing of industrial products: regiocentric orientation of Chinese organizational buyers", *European Journal of Marketing*, Vol. 26 No. 5, pp. 36-55.
- Lambert, A. (1997), "Des assembleurs de composants et des fournisseurs de composants: nouvelle structuration dans la transformation alimentaire", *Industries Alimentaires et Agricoles*, Vol. 11, pp. 781-4.
- Lehman, D.R. and O'Shaughnessy, J. (1974), "Differences in attribute importance for different industrial products", *Journal of Marketing*, April, pp. 36-42.
- Merdji, M., Saives, A-L. and Nicolas, J-L. (1998), *Analyse des Politiques d'Investissement des Industries Agro-Alimentaires en Equipements pour la Transformation de la Viande, du Poisson et des Legumes*, Etudes ESCNA/CETIM, Nantes.
- Moriarty, R.T. (1983), *Industrial Buying Behavior*, Lexington Books, Lexington, MA.

- Mummalaneni, V., Dubas, K.M. and Chao, C.-N. (1996), "Chinese purchasing managers' preferences and trade-offs in supplier selection and performance evaluation", *Industrial Marketing Management*, Vol. 25, pp. 115-24.
- Rastoin, J.L. (1995), "Dynamique du système alimentaire français", *Economie et Gestion Agro-alimentaire*, Vol. 36, pp. 5-14.
- Robinson, P., Faris, J. and Wind, Y. (1967), *Industrial Buying and Creative Marketing*, Allyn and Bacon, Boston, MA.
- Sheth, J.N. (1972), "A model of industrial buying behavior", *Journal of Marketing*, Vol. 37, pp. 50-6.
- Sweeney, T.W., Mathews, H.L. and Wilson, D.T. (1973), "An analysis of industrial buyers' risk reduction behavior: some personality correlates", *AMA Proceedings*, Chicago, IL, pp. 217-21.
- Webster, F.E. Jr (1969), "New product adoption in industrial markets: a framework for analysis", *Journal of Marketing*, Vol. 33, pp. 35-9.
- Webster, F.E. Jr and Wind, Y. (1972), "A general model for understanding organizational buying behavior", *Journal of Marketing*, Vol. 36, pp. 12-19.
- Webster, F.E. Jr and Wind, Y. (1988), "A general model for understanding organizational buying behavior", in Enis, B.M. and Cox, K.K. (Eds), *Marketing Classics: A Selection of Influential Articles*, 6th ed., Allyn and Bacon, Boston, MA, pp. 124-35.
- Wind, Y. (1971), "A reward-balance model of buying behavior in organizations", in Fish, G. (Ed.), *New Essays in Marketing Theory*, Allyn and Bacon, Boston, MA, pp. 12-23.
- Zaltman, G., Duncan, R. and Holbek, J. (1973), *Innovation and Organizations*, Wiley-Interscience, New York, NY.