

---

## Abstract

Downstream of the sector, passengers buy air tickets for private or business use. Upstream, companies buy planes, equipment and services. Further upstream, plane or satellite manufacturers-integrators also buy components from their suppliers. Understanding the needs and the processes of upstream or downstream buying is the basis of marketing. This means analyzing the individual psychological, sociocultural and psychosocial factors which enter into the buying decision. The purchase context influences the buyer's behavior. An analysis of buying behavior is also essential in Business to Business, where the purchase is not made for an individual but for a company, involving a variable number of people. To be more commercially efficient, the supplier must take into account the special nature of the industrial purchase, in particular the specific nature of the buying center, the buying process and buying situations. First we will look at the individual purchase and then the Business to Business purchase.

---

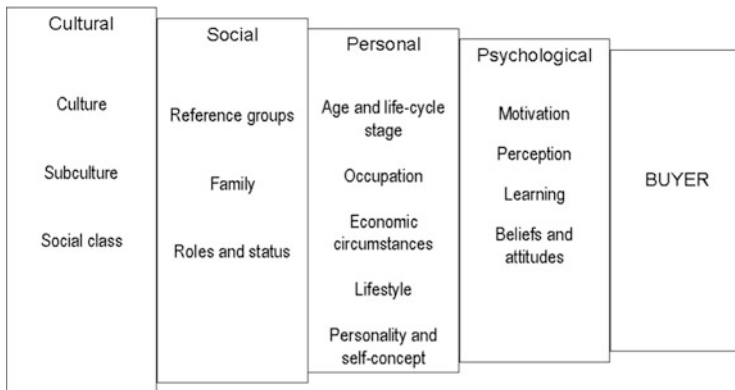
## 2.1 The Individual Purchase

### 2.1.1 Factors Influencing Buying Behavior

Most models present factors influencing buying behavior in a hierarchical and simplified way. In fact, this classification in terms of importance of the factors depends for the most part on the context.<sup>1</sup> For example in Muslim countries the power of religion is very important and almost certainly dominates other factors such as social class.

---

<sup>1</sup> Howard, J. A., & Sheth, J. N. (1969). *The theory of buyer behaviour*. New York: Wiley.



**Fig. 2.1** Factors influencing behavior (Adapted from Kotler, Ph. Armstrong, G., Saunders, J., & Wong, V. (1997). *Principles of marketing*, 2nd European Edition, Prentice-Hall)

In general we can say that there are four types of influence factors (see Fig. 2.1):

- Sociocultural,
- Psychosocial,
- Personal,
- Psychological.

A consumer is first influenced on the cultural and religious level, by the community/communities in which he lives, even before his own characteristics, personality or individual needs come into play. He is also influenced by those immediately around him, usually friends and family. His personal standing at a professional and private level also plays a part in the type of needs he will try to satisfy. Furthermore, psychological factors structure his motivations and perceptions of the different information to which he is exposed. These factors are interdependent although differently weighted. Within a given community, the weighting of the different factors varies from person to person, and for a particular consumer, their importance can also vary from one period to another.

### 2.1.1.1 Sociocultural Factors

Right from birth, the individual is a part of a community which transmits its values, habits, culture and a way of life. The individual is not a free agent; he exists only by and within the group to which he belongs. In this way he is strongly influenced by the characteristics of his own community:

- The language, more or less widespread which could be the main language of his country or conversely a dialect,
- Beliefs, belonging to a religion and to what level this is practiced,
- The type of geographical and climatic environment,
- Eating habits, from types of food and meal frequency to methods of preparation and consumption,
- The style of dressing, choice of transport, etc.,
- Learning methods and obtaining qualifications.

Added to these influence factors there is the notion of belonging to a more or less homogenous social group, generally defined by type of profession and income level. In India, the castes are an extreme social classification where situations are immutable. On the other hand on the American, European or Asian continents an individual has more chance of changing social class. Within a class, individuals tend to behave more homogeneously. This is why the concept of social class is used in marketing, as a way of dividing up the population into sub-groups showing homogeneity in their needs and purchasing power, in order to narrow down the offer.<sup>2</sup>

### 2.1.1.2 Psychosocial Factors

Beyond belonging to a culture, an individual is part of groups with whom he lives from day to day. This is mainly the family circle, neighbors, friends and people he meets during work or leisure. As for sociocultural factors, the individual is influenced by the different ways of life that he sees around him which can be adopted or rejected. When a new type of product or service appears psychosocial factors play an important role. For example the choice of a new holiday destination will influence the other members of the group. Among the groups which influence the individual, the family usually plays the most important role. A distinction must be made between:

- Immediate family with whom the individual lives from day to day:
  - Parents, brothers and sisters when he is a child,
  - Partner and children when he is an adult.
- The family relations meaning the ancestral line (grandparents, etc.) and marriages.

The concept of the family depends to a large extent on the cultural environment. Family ties are usually stronger in countries which have a zero or minimal system of social cover age and also outside the large urban areas. Taking into consideration the nature of groups with their shifting interplay of power, marketing aims to target those who exert the most influence.

#### ***The Child as Influencer***

- *Parents' buying decisions concerning goods or services for the family can be influenced by the children. This can include products or services which directly concern the children (a stay at Disneyland, etc.) but the latter can also influence what the adults buy for themselves. For example school holidays dictating the date when parents can travel somewhere.*

---

<sup>2</sup> See Chap. 4, Market Segmentation and Positioning.

### 2.1.1.3 Personal Factors

The particular characteristics of the individual such as age, family situation, profession or personality also influence buying decisions.

- Age is an important criteria influencing customer behavior, regardless of the country. As a general rule, companies must adapt their products and services to evolving demand, especially when this evolution arises from a change in the population structure. This is well illustrated by the appearance of senior marketing.

#### Senior Marketing

- *The evolution of the population in developed countries is characterized by a fall in the birth rate and a large increase in life expectancy. Consequently, the over 60's represent a greater and greater part of the population. This age group often has a good income thanks to advantageous pension schemes and represents an increasing part of a country's overall purchasing power.*

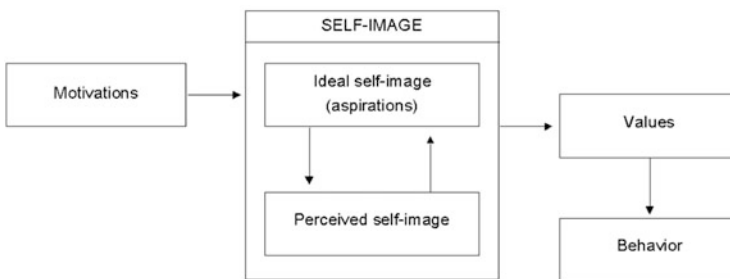
*An analysis of this age group dispels certain home truths: in fact, older people are often favorably disposed towards new consumer products and services. They are less and less conservative, have a stable income and merit a separate marketing approach. On the other hand while people may be living longer, there is no getting around the fact that certain capacities diminish such as visual and auditory acuity or precision of gestures. Therefore senior marketing must allow for certain rational expectations (documents written with a larger typeface, messages which are loud enough, ergonomics of vehicle seats, ease of movement) and certain irrational ones such as receiving special attention, respect for elders, sometimes dealing with somebody who is in the same age group.*

*This 'senior consumers' category is characterized by the dual availability of time and money. Their buying power is paralleled by a large capacity for research and comparison shopping before the actual act of buying. This trend towards "senior marketing" originated in the United States before flourishing in Europe and on the Asian market. At present it is mainly concerned with airlines marketing departments for travel and tour operators for vacations. Equipment suppliers have also taken steps, e.g. Zodiac Sicma Aeroseat and Weber Aircraft, seats (individual digital screens, 130/180 ° seats, armrests with goblets, etc.). During the design phase, this equipment can be integrated to answer the comfort needs of this target population (Fig. 2.2).*

- The family life cycle is another important explanatory factor in the 'personal' category. When a young person leaves home and has finished studying, his first job is not normally the moment for long-term investments. When he starts a family, he will be more risk sensitive and will look for financial and geographical stability. In this way, individual ambitions linked to perceived risks will vary according to each person's commitments within the family environment. The birth of a first child normally results in spending being redirected with sometimes the start of savings. Some years later when the children are old enough to leave home, money within the family budget can be re-allotted once again.



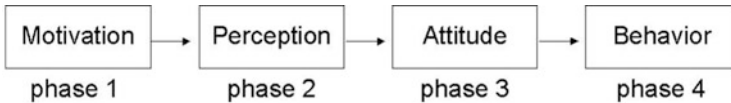
**Fig. 2.2** Sicma Aeroseat: a sophisticated seat answering specific expectations



**Fig. 2.3** Self image (Filser, M. (1994). *Consumer behaviour*. Paris: Précis Dalloz)

- Social standing and profession, which are closely associated with one's self image, also influence behavior (see Fig. 2.3). The concept of self-image refers to the way in which an individual sees himself (ideal self image) and how others see him (perceived self image), relative to how much consideration he would like to be accorded. The discrepancies noted add on to the initial motivation thus influencing choice criteria and finally buying behavior, whether it be a private purchase or the individual's influence in a organization purchase. The profession of the person has financial effects in the first instance, allowing or limiting the purchase of certain goods, starting with the type of house, the main means of transport used, etc.
- Life styles, which group people according to their opinions, their main interests and their activities, depend to a large extent on those characteristics presented above. A lifestyle classification puts people into homogenous groups<sup>3</sup> which do not take into account traditional socioeconomic variables, but rather depend on their behavior in terms of preferred products and services, distribution channels and media.

<sup>3</sup> See Chap. 4, Market Segmentation and Positioning.



**Fig. 2.4** The different stages: from motivation to behavior

All these factors are widely used by marketing departments: by permitting better market segmentation within the population, they improve the offer made by the company, which can then set up tailor made solutions for each of the main segments.<sup>4</sup>

#### 2.1.1.4 Psychological Factors

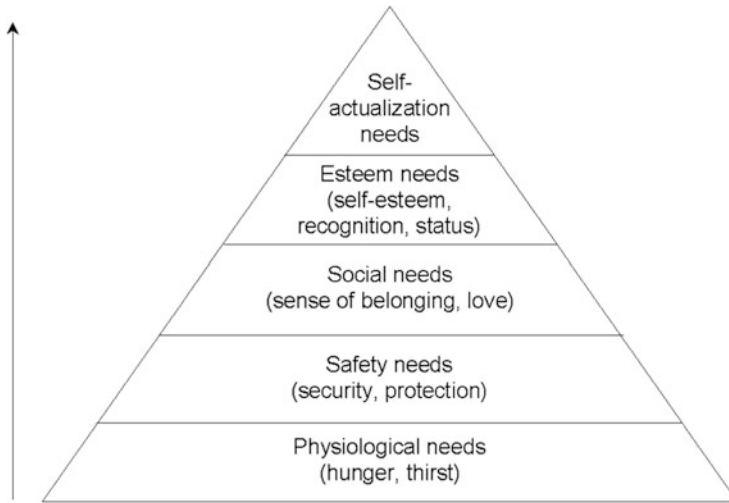
Buying behavior is the outcome of a sequence going from motivation via perception, attitude and learning culminating in trial or buying (see Fig. 2.4).

**MOTIVATION.** Motivation plays a driving role in the building of desire. These are the deep seated reasons pushing the individual to make his choice. Following on from the work of Sigmund Freud, motivation was studied by Abraham Maslow who proposed classifying needs into five categories (see Fig. 2.5).

Starting from the theory that needs do not all have the same importance for an individual and that they can be put into a hierarchy, Maslow developed the idea that it is necessary to have satisfied a first type of need before taking on the next one. Physiological needs correspond to the vital necessity to eat and drink to remain healthy. Safety needs correspond to being able to protect oneself from the elements and from possible danger (animals, criminals, etc.). Once both of these basic needs are satisfied, the individual begins to be interested in the need for belonging and affection (social needs). In this case it is a question of belonging to a community which can be sports oriented, cultural, religious or a certain style of life. Needs related to esteem correspond to a wish to be appreciated by one's close friends and family or within the work environment. These can translate into external signs of way of life or wealth. The fifth category involves the need to accomplish something in terms of personality, by traveling far away or achieving some complex sporting or cultural goal. Whatever the need whether psychological or material, the greater the lack, the stronger the motivation to satisfy it (Table 2.1).

**PERCEPTION.** Depending on the various messages received and experiences lived through, the buyer has a different perception of the various services and brands available to him. Following on from the first stage, if the individual is motivated, he will be more likely to increase his level of information to optimize his decision. Motivated by the purchase of a particular product, he will pay greater attention to the advertising by different brands. It should be noted that the brand

<sup>4</sup> See Chap. 4, Market Segmentation and Positioning.



**Fig. 2.5** Maslow's pyramid of needs (Adapted from Maslow, A.H. (1970). *Motivation and personality*, 2nd Ed. Harper & Row)

concept can modify perception of a product category, even if this does not necessarily seem logical. An individual could have a negative perception of civil aircraft with less than 70 seats but a positive perception of Baboo airline that flies two 70 seater (Dash 8-Q400). As a function of his preconceived ideas, an individual will pay more or less attention to the messages put out by the company. For example a Muslim consumer will be much more likely to be motivated by respect for rituals concerning his food and will carefully verify whether there are alcohol or pork in ready-made dishes. This could be an important selection criteria for an airlines. In addition, a consumer often has preconceived ideas about the different competitor brands. When the consumer's brand preference is adversely affected by a disappointing experience, "cognitive dissonance" allows him to adapt the company's message to what he really wants to hear (Fig. 2.6).

**ATTITUDE.** According to how the company messages are perceived, the potential buyer will gradually build up an attitude concerning the product category and the different suppliers on the market. This attitude will benefit from any previous experience either from a first buy or through the experience of a family member or close friend. An attitude is therefore formed from an overall combination of favorable and unfavorable evaluations whether they be based on objective judgments or emotional reactions. The marketing department needs to know the attitudes of the various customer segments in order on the one hand, to try to correct the unfavorable components and on the other, use those which are favorable. For example a supplier such as EDS can invest in the sponsorship of an event like the Olympics in order to reinforce the technological and performance related image of its systems adapted to the sports context. The attitude of professional users can therefore be backed up by the appropriate choice of communications.

**Table 2.1** Example of a “needs pyramid” which can be satisfied by air transport

Need category	Examples	Contributor
Accomplishment	Carry out the first flight in a new type of aircraft	Sir Richard Branson (Founder of Virgin Group) and Burt Rutan (President Scales Composites) when they accomplish the first flight of the Spaceship One (sub-orbital spaceships)
	Accomplish a first flight link up	Russian Cosmonauts some of whom stayed several months in space
Esteem (acknowledgment, status)	Thanks to one-to-one marketing, it is possible to prove to 1st class passengers that they are recognized, addressing them by name and showing that their habits and preferences have been noted, similarly, with their previous comments (food, dress and language codes)	SkyMiles Silver, Gold Medaillon (Delta Airlines)
	More generally, membership in the “Privilege” clubs according to many miles traveled	Skyteam Elite
Belonging and affection	Belonging to a nation: the airline’s aircraft can be thought of as an extension of national territory where everybody can feel at home	US airlines identified by some symbol recalling the national flag
	Membership, in a World War 2 veterans club or a local gliding club	
Security	People in difficulty through floods, fire, embassy evacuation, being winched up to safety by a helicopter	Firemen, armed forces, etc.
Physiological	Air drops of food, drinking water, medicines, after fighting or a natural catastrophe	Non Governmental Organizations: International Red Cross, Medecins Sans Frontières, Aviation sans Frontières, Refugees International, American Red Cross, Care, etc.

### 2.1.2 The Buying Process

In order to influence a customer segment effectively, marketing must make an effort to understand how the individual customer buying process takes place.

**THE STAGES OF THE BUYING PROCESS.** An individual purchase goes through several stages (see Fig. 2.7):

- *Need recognition*: needs come from stimuli which originate directly with the individual or his environment. This could be the case for example where someone feels the lack of social differentiation, not having had any attention





**Fig. 2.6** A350 comfortable Interior Cabin



**Fig. 2.7** The different stages of the individual buyer's decision-making process (Adapted from Filser, M. (1994). *op. cit.*)

before or during a flight. In addition, company communication can stimulate the need by alerting the individual to the existence of a new service. This will allow the company to identify passengers and get to know some of their wishes.

- *Information search*: as soon as there is a visible need, the individual will start to pay attention to the different sorts of information available within the product category or services concerned. The search will be more or less active as a function of how involved the individual is in the process. When it is a question of a sophisticated or expensive product such as a computer or a vehicle or a specific brand product which is more difficult to find, e.g. luxury goods, the search could be very active. On the other hand, when it is a question of a more common product, the search will be less intensive. The potential customer generally uses

personal sources of information such as family or friends at work as well as business sources (i.e. the companies themselves or their representatives).

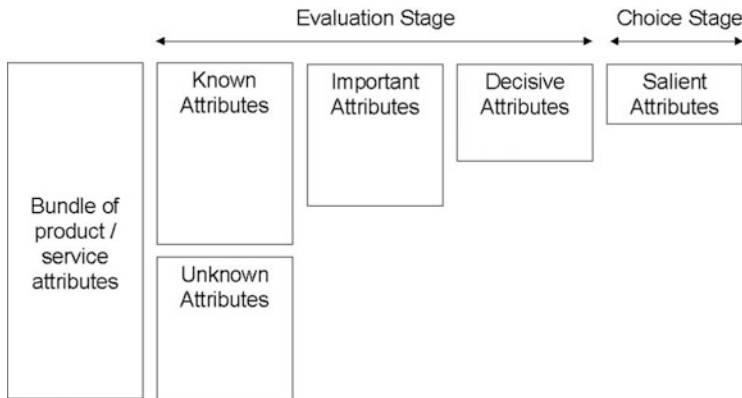
- *Evaluation of alternatives:* in order to choose, the buyer must first of all identify the attributes which interest him. Here it should be noted that certain attributes will be known or unknown, depending on the characteristics and background of the buyer. The evaluation must weigh up the different attributes i.e. how much importance is accorded to each of them. Researchers have suggested numerous buying models which quantify the evaluation. The “overall consideration” brings the competing brands together in the customer’s mind. For the purchase of a PC, let us suppose that the criteria are the price, the memory, the frequency of the microprocessor and the amount of equipment. A mathematical model lets us weigh up each of these four attributes and so assess each of the three competing brands for these same attributes. By weighting the values, an overall mark can be obtained for each brand. If the purchase is based on completely rational reasoning, this is the perfect approach for selecting the brand which corresponds to the customer’s expectations.
- *Purchase decision:* an individual buy is never totally rational and therein lies the important limit of the different buy models. In most cases subjective criteria such as brand preference, influence the final choice in spite of any quantitative evaluation. Situational factors at the actual buying site can also modify the buying decision (promotion, lack of room, sales staff, travel agency atmosphere, etc.). In order to optimize the company’s offer and its subsequent communication campaign, the relative importance of the attributes must be precisely determined by the marketing department using qualitative studies.<sup>5</sup> However the finer points of these evaluations are generally lost on the individual buyer when he comes to decide. Two cases are most often encountered:
  - The presence of an attribute can be considered as indispensable even only at a minimum level. In this case its absence will be cause for elimination.
  - The presence of an attribute can be desired without being essential, and in this case selection is made by comparing the advantages and disadvantages of the different suppliers.

For the customer, the importance of attributes derives mainly from the perceived risk implicit in the purchase (see Fig. 2.8).

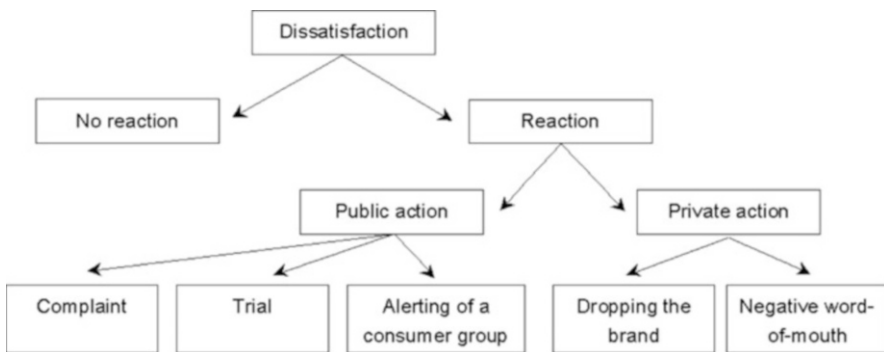
- *Post-purchase behavior:* it is only after actually buying that the buyer can make a judgment. This will be determined by any eventual difference between what he hoped for and what he actually obtained as regards the different attributes. “Cognitive dissonance” is an individual’s capacity to modify his expectations in retrospect in order to reduce this difference, which will in turn allow him to better accept his buying decision. When he is satisfied, he will pass this on to those around him by word of mouth, which remains one of the main communication methods especially in Business to Business marketing. When he is dissatisfied, there are several solutions (see Fig. 2.9). The negative reaction

---

<sup>5</sup> See Chap. 3, Business Marketing Intelligence.



**Fig. 2.8** Typology of attributes (Adapted from Filser, M. (1994). *op. cit.*)

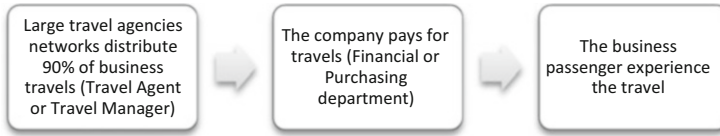


**Fig. 2.9** Dissatisfaction: the different possible reactions (Day, R.L., & Landon, E.L., Toward a Theory of Consumer Complaining Behavior, in Woodside, A.G., Sheth, J.N., & Bennett, P.D. (1977). *Consumer and industrial buying behavior*. New York: Elsevier)

can be expressed through some simple personal action followed in general by abandonment of the brand and spreading unfavorable word of mouth. The reaction may also include visible actions such as sending a letter of complaint to the supplier, taking legal action and above all creating bad publicity through associations and/or press groups.

**ROLES IN THE DIFFERENT TYPES OF BUYING.** Although they will be less well structured than for an organizational buy, the same main figures that influence the individual buy can be found within a family:

- *The user* who will consume the products or services, for example the child in the case of a theme satellite station such as Disney Channel;
- *The actual buyer* of the product or service. Depending on the culture and type of product, the mother often plays a dominant role here;



**Fig. 2.10** The business travel buying process



**Fig. 2.11** The permanent buy swing on the continuum

- *The decision maker* or the person who decides when there are several possible solutions. When it is a question of general products, the mother or the father plays this role according to their competence in the product categories. If it is a very important purchase such as a house, the decision is generally made by both parents;
- *The influencer* is the person who influences the final decision when this is not the actual decision maker, e.g. children, grand parents, etc. (Fig. 2.10).

The analysis of roles in the buying process can highlight the very different types of purchase, from the complex to the routine. While in the former case several people are concerned by the process, in the latter, there is often only one. In a routine buy, the different stages of the process are also reduced to their simplest level which is especially true for frequent purchases of run-of-the-mill services or products.

The purchase is part of a continuum (see Fig. 2.11) with:

- On the one hand, the “sociological” buy, based on a desire to display membership of a community (economic decision makers, sports team members, age group, ethnic minority, etc.),
- On the other, the “psychological” buy, based on the need to assert one’s personal identity.

The very existence of different product categories and their brands, allows the individual to satisfy a psychological and/or sociological need. The individual is always torn between the desire to be like everyone else or to stand out and emphasize one’s originality. For example, concerning air transport, the choice of ticket (first, business, tourist) can be counterbalanced by asserting one’s individual identity based on choice of clothes, food, reading matter, etc.

## 2.2 The Organizational Purchase

A purchase will be considered to be Business to Business or organizational from the moment that it is made in the name of a company or organization, regardless of size, from a medium sized company up to a multinational or state company. Professional purchases essentially cover<sup>6</sup>:

- The purchase of *entering goods*, necessary for making the final product: this can be raw materials (aluminum, titanium, etc.), transformed materials (PTFE Skyflex® joints for portholes, etc.) or components, spare parts, sub-assemblies (cables, braking systems, aircraft windscreens, etc.);
- The purchase of *foundation goods*, necessary for the company to function, e.g. office supplies, IT equipment, digitally controlled machine tools and production robots;
- The purchase of *facilitating goods*, from the supply of energy (electricity, water), insurance or banking services to consultations (chartered accountants, auditors, design offices, etc.) via staff restaurants, catering, security services and the transport of goods.

The *buying center* concept encompasses all of the operational and functional managers who take part in the final acquisition decision, and not just the buying department. The interactions between the participants, as well as the weight of each of their social roles, has been highlighted by the work of numerous authors, among them Robinson, Faris and Wind.<sup>7</sup>

### 2.2.1 The Buying Center

Unlike the buying department, the buying center has no formal existence. It groups together all the people who take part in the decision process.<sup>8</sup> Four types of people are usually identified.

#### 2.2.1.1 The Decision Makers

This is the person or persons who make the final decision and who can decide in case of disagreement which supplier to choose. In a small or medium sized business, this will normally be the head of the company who will decide, often aided by the person in charge who is seen as trustworthy and competent for the project in question. In larger companies, the “boss” is replaced by the board management committee headed by the chief executive officer or the president. However, in the case of conflict within the buying center, one of the managers

<sup>6</sup> Malaval, Ph., & Bénaroya, Ch. (2013). *Marketing business to business*. Paris: Pearson Education.

<sup>7</sup> Robinson, P., Faris, C. W., & Wind, Y. (1967). *Industrial buying and creative marketing*. Allyn and Bacon.

<sup>8</sup> Webster, F. E., & Wind, Y. (1972). *Organizational buying behavior*. Englewood Cliffs: Prentice-Hall.

will generally have the power to decide one way or another. Information such as this is of great importance to the supplier.

A look at large companies shows that the main way of making decisions is in fact collective, i.e. even a chief executive officer who is strongly involved in technical decisions will prefer to get a collective vote from the board management committee rather than to impose that decision unilaterally. Only after the different propositions have been studied and above all the in-house and external opinions analyzed, will the final decision be made.

### **2.2.1.2 The Buyers**

This is basically the buying department, whose main functions are:

- To collect information concerning the different market solutions available to the company, taking into account in-house know how and financial constraints;
- To find out about the different suppliers capable of adequately answering the company's needs.

This dual function necessitates close, wide-ranging contacts with the market above and beyond the suppliers used and known by the company.

The other main function consists of taking charge of the pre-selection of supplier companies competing for the market: this is the intermediate phase leading to a short list used for the final selection. Having picked out the acceptable and possible solutions, it then remains to choose and convince others of the solution which appears to be the best for the company.

In a growing number of companies the organization of purchases has evolved by putting more emphasis on the final customer, by applying traditional marketing methods to the selection and evaluation of suppliers; this is what is meant by *purchase marketing*.<sup>9</sup>

### **2.2.1.3 The Influencers**

The influencers in fact make up the contact group which, from one company to another, varies the most according to the different sectors and the different types of corporate culture. Two types of influencers must be singled out: in-house and external.

The *in-house influencers* are those managers who either favorably or unfavorably sway the other members of the buyer group in relation to this or that supplier's offer. This could be managers from quality assurance, maintenance, marketing, sales or R&D.<sup>10</sup>

The *external influencers* also hold sway with the buying center members through the opinions that they voice. Essentially they consist of the customers, the professional experts (engineering consultants, design offices), those in charges of running the airports, the national and international certification organizations, the specialist press journalists (*Airline Business*, *Avionics Magazine*, *Journal of Electronic*

---

<sup>9</sup> See further, Sect. 2.6.

<sup>10</sup> See Sect. 2.4.

*Defense*, etc.). Customers already on the books are also important influencers, even more so when they are a reference in terms of professionalism. This is particularly true for the military market where an order for an arms system (missiles, fighter aircraft, troop carriers, etc.) from an army, lends credibility to the offer and encourages other countries to obtain the same equipment.

### 2.2.1.4 The Users

The consideration given to users varies markedly according to the size of the company, its culture and geographical location. In general, the amount that customer opinion is taken into account depends above all on their social status. In the aeronautics sector, pilots have a high prestige, quite apart from the fact that they are represented by unions which are often very powerful. Apart from this example, user opinion is increasingly being taken into account. The idea is to listen to those who are going to use the material in question because, as befits someone on the front line, they often make pertinent remarks or criticisms. In addition, taking into account user expectations improves their motivation at work and their loyalty to the company. However, this regard for the user depends also on the national culture. 'Participative' management is particularly well developed in the Scandinavian countries whereas it is almost unknown in southern hemisphere countries such as Latin America. Finally, the weight of user opinion often depends upon the size of the company: special systems for representation generally make users more influential in larger companies.

To conclude, the industrial purchase results from a collective decision taken by a variable number of people, who can be more or less involved in the purchase and who show very little homogeneity between themselves (in terms of education, responsibilities, level of confidence).<sup>11</sup>

In order to position themselves and negotiate better, it is in the interest of supplier companies to know as much as possible the different in-house contacts within the customer company (exact role, motivations, present position, previous job, education, other personal information). They must also identify the customer company's buying phase and his buying policy (type of negotiation, buying power, dilution of supply risk between the different suppliers, any eventual alliances between contractors, etc.) (Fig. 2.12).

## 2.2.2 Buying Phases

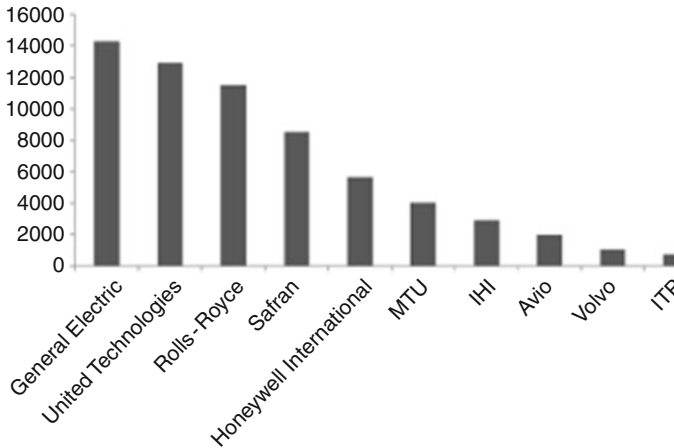
Industrial buying is the result of an iterative process in six main phases<sup>12</sup>:

1. Recognition, or better, anticipation of a need,
2. Definition of the characteristics and quantities necessary,
3. Search and qualification of potential sources,

---

<sup>11</sup> Malaval, Ph. (1999). *L'Essentiel du marketing business to business*. Paris: Publi-Union.

<sup>12</sup> See in particular Robinson, P., et al. (1967). *op. cit.* and Sheth, J. N. (1973). A model of industrial buyer behavior. *Journal of Marketing*, 37, 50–56, October.



**Fig. 2.12** The ten leading worldwide engines manufacturers (millions of USD) (Source: Pricewaterhouse Coopers analysis from company reports)

4. Collection and analysis of propositions,
5. Choice of suppliers and ordering process,
6. Information feedback and performance evaluation.

Certain companies, particularly integrators, select the supplier by putting out to tender.<sup>13</sup>

### 2.2.2.1 Anticipation and Recognition of a Need

Anticipation of a need rather than mere recognition allows the company to gain time in terms of the technical details of acquisition. It can orient the in-house decision makers, e.g. the marketing department, towards realistic or really achievable solutions. In the same way, the attentive supplier who can effectively take care of his customer's future problems, benefits from the atmosphere of confidence that he has thus created. The anticipation of needs relies on being aware of all in-house and external information exchanged. This means detecting signs of latent needs which have still not been formalized.

Within technical departments, this could be improving quality by decreasing the amount of waste, or replacing some equipment whose use damages a certain cutting tool, or preparing for the substitution of a particular material whose use will be forbidden under new environmental norms, or protecting oneself against a one-off or long-term shortage which could occur through dependence on a sole supplier (see Fig. 2.13).

Within the sales and marketing department, this involves improving customer satisfaction by correcting a product's weak point: integration of more recyclable

<sup>13</sup> See further, section "Bidding".





**Fig. 2.13** The transfer of information from the technical department to the buying department



**Fig. 2.14** The transfer of information from the sales and marketing department to the buying department

products, replacement of an ergonomically unsatisfactory control button, a dial which is difficult to read, etc. (see Fig. 2.14).

At the same time, the purchasing department receives information from the suppliers themselves. This could be directly from the supplier's marketing or technical department, proposing a new material or a new process, but it could also be information collected by the supplier from other customers. This will be welcomed by the customer company as long as this information does not come from a direct competitor, because in this case there would be risk of suspicion.

#### **2.2.2.2 Defining the Characteristics and Quantities to Be Bought: The Specifications**

This means defining expected performance in terms of type of product, materials, tools to take into account and what quantities are necessary for a given period of time. Drawing up the specifications answers this need for precision. Apart from the essential technical specification, the commercial services must be prepared by specifying delivery constraint (times, frequency), as well as the logistic specifications, terms of payment, maintenance and after-sales service conditions. For state-of-the-art products like satellites, the requirements will be drawn up by the technical department (functional engineering, methods section, norms), helped by the users, supervisors, shop foreman, etc. In the case of everyday products, the user department will draw up its own technical specifications. They will be able to supply detailed information about the product and also sometimes about the production process and technical assistance. The more information they have, the more they will be listened to. The more knowledge offered, the more the sales person will be accepted in the problem solving process. His action is an investment for the next phases.

The distinction can be made between suppliers who are "in" or "out" according to whether or not they are already on the company's books. It will be easier for the supplier to offer technical advice if he is already "in" i.e. known within the company. He will be that much better placed to identify possible improvements than a supplier who is "out".

### 2.2.2.3 Searching for and Qualifying Potential Sources

This phase consists of drawing up a list of potential suppliers. This must include not only the “in” suppliers currently on the company’s books, but also those, “out”, with whom there have already been exchanges in the past as well as those who have so far never supplied the company.

The search for these suppliers should not be restricted to a given technology: a competitive solution can be obtained through different technological channels. In the plastics molding industry for example, most supplies are concerned with either thermoforming or injection molding. Both techniques can be competitive depending on the qualities (flexibility, resistance) and quantities needed for the materials. Consequently the search for suppliers must cover both types. One very popular method for drawing up a list of possible suppliers consists of noting the most dynamic companies present, as reflected by their communications strategy, in the trade press. In addition, the impression they make as exhibitors in shows and the factory visits they propose are further reasons to include them on the list of competitors or not.

Certain companies are even more dynamic: here, rather than waiting for proposals from the suppliers, they make the first step. This method presupposes a different state of mind. Even when the buying structure is a large company or government administration, it should not become over confident or adopt the “easiest solution” rather, it should develop a purchase marketing approach. The latter consists of applying methods developed downstream for customers to suppliers.<sup>14</sup> The ultimate aim is to make the suppliers want to work with the customer company even under technically or financially limiting conditions.

### 2.2.2.4 Collecting and Analyzing Propositions

The collection of information must be objective and scrupulous, not based upon preconceived ideas and trying not to take previous experience into account. A grading table can be made and applied to the different propositions, scoring each criteria, and these values should be weighted as a function of the essential character of each of the different characteristics.

For anything concerning foundation goods, negotiations can last several months. There are frequent exchanges of proposals and counter proposals between the company and its suppliers. Quite apart from the rational arguments, the supplier who produces a made to measure solution is at a great advantage.

It is in this phase also that the respective advantages of in-house production and external supply will be compared: *Make or Buy*? Each time the company can produce more economically than the lowest buying-in price, the in-house solution will be retained. It will also be favored in the case where the company wishes to keep control of what they consider to be strategic know how.

---

<sup>14</sup> Bénaroya, Ch. (1997). Étude comparée de l’efficacité perçue des outils du marketing achat. *Mémoire de DEA*, Université Toulouse 1.

### ***“Make or Buy?”, the Example of the Super Transporter: From Super Guppy to A300-600ST<sup>15</sup>***

- During the seventies, Airbus favored the “buy” route by using the “SkyLink”. What they did was to transport fuselage parts from the Hamburg (Germany) production site to Toulouse (France), using the McDonnell Douglas Super Guppy Turbine (B-377SGT) which had been developed to carry American Titan rockets. In the early 1990s, Airbus adopted the “make” route by developing the Airbus A300-600 Super Transporter, nicknamed the Beluga, to transport fuselage parts in a more practical and efficient way.

Today, this plane is actually a new offer from Airbus for transporting very large parts or objects (Airbus Transport International): no more costly dismantling of power lines to let a convoy through, or avoidance of a river or sea route where there are low bridges. The Airbus Super Transporter flies over difficulties like these. Generally considered to be the plane with the largest freight hold on the market, the AST is the best adapted for the transport of oversize elements. An example of its extraordinarily large transport capacity was when it flew different, enormous, full petrol storage tanks between two densely populated areas of Western Europe. The same feat on the road would have taken several weeks compared with the AST’s 1 h flight time. The cargo thus arrived faster and more reliably at its destination.

#### **2.2.2.5 Choosing Suppliers and the Ordering Process**

Choosing the ordering process depends on in-house constraints, notably technical ones. For example *just in time* production requires a special organization which the supplier must adhere to. The choice also depends on the propositions and possibilities of various suppliers as a function of their own logistical organization:

- Proximity of supplier’s production site;
- Stock distribution platform.

It should be noted that the buying procedure is only terminated once the product has been delivered and received by the company, checked by the user department and declared to be ready for use. A change in ordering method is obviously possible, but it will involve a re-negotiation of the agreement between the company and its supplier.

#### **2.2.2.6 Information Feedback and Performance Evaluation**

A complete buying process necessitates a checking phase. It is only by feedback from the working environment that the buying center and especially the buying department, can evaluate whether they have made the right choice. The two main areas are marketing-sales and the production department. The latter is the first in line to warn of anomalies or differences in the quality ordered and that actually received.

---

<sup>15</sup> Source: Airbus.

Apart from this quality follow-up, the production department can feed back information concerning ease of setting up or a bad choice in terms of protection during transport, etc. However, the essential feedback will be from the sales department. Do customers notice a difference? Are they more satisfied? Respect of the requirements brief will be judged from a technical and a commercial perspective: speed of delivery, regularity, flexibility, repair service capacity, etc. In order to facilitate information feedback, the buying department must do everything to catalyze the process, notably by explaining that a supplier's position can never be taken for granted and that changes are always possible depending on reactions.

From the supplier's point of view, the ideal would be to meet the customer company as soon as possible. If the potential supplier is involved right from the outset, it is possible for him to influence the contents of the specifications, or even buying procedure by the grouping together or the separation of the equipment/supplies ordered. Beyond the phases, there is another characteristic which renders business to business marketing even more complex: the importance of the respective representatives varies according to the type of purchase. For an identical buy, the fact of buying it for the first time or the *n*th time modifies the amount of influence of each of the members of the purchase center.

### 2.2.3 Different Situations

Three main types of buy can be distinguished<sup>16</sup>:

- The straight rebuy,
- The modified rebuy,
- The new task.

#### 2.2.3.1 Straight Rebuy

The straight rebuy pattern is the most often encountered and corresponds to an almost unchanging need. In this context, the company's evaluation criteria are well known as are the appointed suppliers. Commercial relations are stabilized thus favoring the already established partners. To reinforce his position, the accredited supplier can go as far as to offer automatic restocking in order to make it even more difficult for a potential competitor. In the same way, the trend towards *just-in-time* production management tends to reinforce loyalty. In most cases, for this buying pattern the decision maker remains the buyer or the head of the buying department, when it concerns "everyday goods". When it is a case of relatively sophisticated equipment, users exert the greatest influence ahead of the buyers. They are offering the company the benefit of their experience.

---

<sup>16</sup> Robinson, P., et al. (1967). *op. cit.*

### 2.2.3.2 Modified Rebuy

This situation involves the desire to modify the response to an existing need. This is true for example of a product in the mature phase, for which the company would like an improvement in quality and/or reduced costs. This situation can also hide an underlying dissatisfaction with the present suppliers who, if they had only recognized the company's expectations soon enough could have proposed a modification or at the very least a direction in which to conduct improvement research.

Here, the company will try to find out more information about other possible procedures and other possible suppliers. This is an opportunity for a supplier who is not already on the company's books to attempt to be the best regarding the particular improvement. It could also happen that this very same supplier is at the origin of the questions concerning the previous deal. . . When changing a supplier becomes a possibility, the number of people to contact within the company increases: the buyer retains an important role, but the Production, Technical, Engineering and Quality Departments for example are concerned by the choice. They must verify that the proposed improvement does not mean a failing on another criteria.

### 2.2.3.3 New Task

This involves the most number of people within the buying center. There are numerous interactions between the marketing department, the technical department management (Method, Engineering, Quality), and the Production and Buying Department. Here, the risk is at a maximum, which is why the opinions of the influencers and advisors predominate. The buying department's opinion no longer takes priority over that of the technical management. This is the most open type of buying situation for the non-appointed suppliers. In order to obtain new solutions, information is crucial and members of the buying center should spend a lot of time collecting and selecting it. As can be seen in Fig. 2.15 it is here that the "Make or Buy?" alternative becomes apparent: either in-house production of the necessary material or else buying in from an outside source.<sup>17</sup>

If the project is new and innovative, it could be useful to keep complete control. By making a particular spare part or component, the company will acquire new know how which will allow it to get to know the limits and demands of the type of material used. In addition, choosing in-house production could be the most discreet solution. According to how successful the product is a few years later, the company can still choose the buying-in solution. And this new task situation also corresponds to a new product launch phase and in particular to those for which price is less important than quality (Fig. 2.16).

---

<sup>17</sup> Reeder, R. R., Brierty, E. G., & Reeder, B. H. (1991). *Industrial marketing*. Englewood Cliffs: Prentice-Hall.



Fig. 2.15 The Airbus Super Transporter

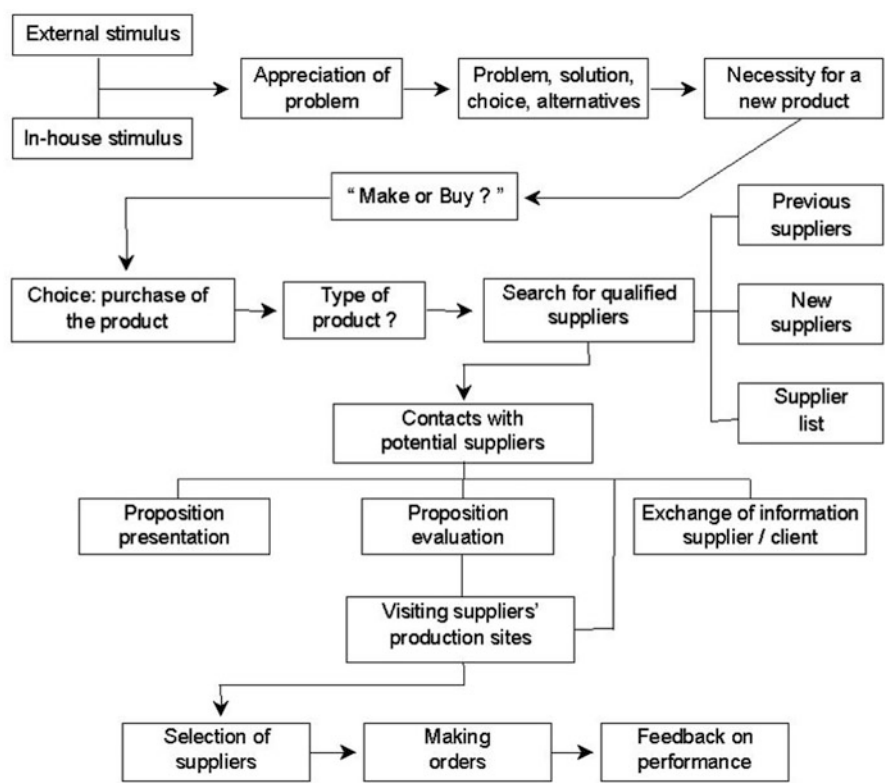
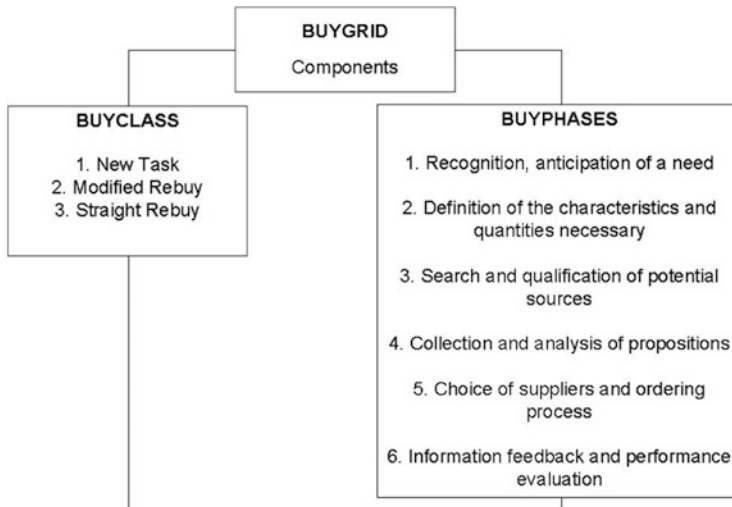


Fig. 2.16 The new task buying decision procedure



**Fig. 2.17** The (simplified) Buygrid model

### 2.2.4 The Behavior of Professional Buyers

In the wake of work by Levitt, many researchers have focused on the behavior of industrial buyers. Robinson and Faris's model (see Fig. 2.17) also called the Buygrid model, uses both the three buying situations (Buyclass) and the different phases of the buying process (Buypases).

This model stimulated a sequential analysis of the salesperson's responsibilities. Before meeting his customer, the salesperson must ask himself:

- In what buying phase is his customer?
- What type of purchase does the project represent for his customer, and consequently, who are the people really concerned and what is their respective influence?

Other models have been developed which integrate:

- Individual characteristics of the decision makers (training, past experience, degree of satisfaction with previous purchases. . .),
- Factors associated with the nature of the particular company (sector, size, etc.),
- Factors associated with the product (response time to need, level of perceived risk. . .),
- The level of mutual long-term involvement for both customers and suppliers.

In the industrial context, the customer is active, but the supplier also participates in defining the products or services offered: given the latter's increasing complexity, a supplier can contribute to elaborating the customer's requirements; by doing this, he will be better able to stand up to the competition. This is especially true in the case of bid determined markets.<sup>18</sup>

<sup>18</sup> See section "Bidding".

**Table 2.2** Main rational and non-rational criteria

Rational criteria	Mon-rational criteria
Price level	Prestige and reputation of supplier
Delivery times	How long the relationship goes back
Specifications conformity (Norms)	Membership in an ethnic, linguistic, religious or political community
Quality	Family relationship
Precision of estimates and summary notes at the end of project	Investment role of the supplier in the country
After-sales service	Educational background of people involved (universities, engineering schools, business schools. . .)
Proximity of distributor or supplier sales department	
User safety	
Availability of managers	

While researchers have sought to create models for the industrial purchase, it is also important to consider the non-Cartesian criteria which contribute to implicit buyer expectations. In fact, the industrial buying process and purchase have long been qualified as rational compared to the more emotionally driven behavior of individual consumers. This concept stems from the economic rationale underlying buying in the industrial context, in particular regarding the search for the lowest cost. However, this attitude varies considerably depending on the situation.

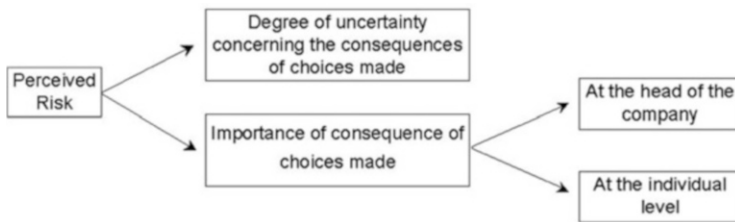
The explicit criteria generally considered include price, specifications conformity, delivery times, payment, repair/replacement capacity, and diverse quantifiable commitments. In addition to these rational criteria, the customer's implicit expectations must be identified (see Table 2.2) so as to optimize the negotiation underway.<sup>19</sup>

These criteria can include:

- The reputation or prestige of the potential supplier. The very concept of “reputation” can vary considerably from one company to another, and the supplier must understand what this means in the particular context: working in the same geographic area, in the same sector of activity, for a particular government administration or company;
- The size of the company: people have prejudices about working with a big company, or on the contrary, a small one. Whatever the size of the customer company, buyers can be reassured or doubtful about the idea of working with a very large supplier, just as they can be concerned about the lifetime of a small company, or expect better service.
- The nationality or geographic location of the supplier: this can be both an irrational criteria (regional preference) and rational (mental and physical proximity which can allow more efficient after-sales service);

<sup>19</sup> Malaval, Ph. (2001). *Strategy and management of industrial brands*. Boston: Kluwer.





**Fig. 2.18** The main components of perceived risk in the industrial buying situation

- Conscious or unconsciously desired similarities with the supplier's staff in terms of ethnicity, culture, religion, or educational background, among others.

From one country to another, whatever the development level, these non-rational factors come into play.

The concept of perceived risk plays a significant and ambiguous role in analyzing buyer behavior (see Fig. 2.18). In fact, there are risks perceived by the:

- Company, in terms of the reliability of supplies, protection from exchange rate fluctuations,
- Buyer himself, in terms of resistance to his final choice from a particular department, being accused of going for the easiest solution, suspicion of partiality, etc.

According to Choffray's analysis of perceived risk,<sup>20</sup> the buying department determines a hierarchical classification of risks and procedures corresponding to the estimated risk level. For example, when there is a high degree of uncertainty and the choice has important consequences, the perceived risk is highest. In this case, the buying department signals this to the company and the buying procedure will necessarily go through the different phases described earlier (Fig. 2.19).

## SPECIAL FOCUS

### ***Marketing and Sales of Military Aircraft. Can methods and procedures of the civil sector be applied?***<sup>21</sup>

*"The markets are different..." is an often heard argument brought forward by industry representatives.*

*Certainly, operations and support of military aircraft differ widely from what civil airlines experience every day. Just a few key examples: Military aircraft normally operate between 350 and 1,000 flight hours per year compared to some 3,000–4,000 h for the civil aircraft. The airlines operate on standard routes, with (over a given time) a constant aircraft utilisation and use existing airport and other infrastructure facilities. On the other hand military aircraft do not operate on given*

<sup>20</sup> Choffray, J.-M. (1979). Perception of risk in the industrial purchase. *Revue Française de Gestion*, 22, 24–30, September; Salle, R., & Sylvestre, H. (1992). *Vendre à l'industrie*. Paris: Éditions Liaison.

<sup>21</sup> Written by Peter Jost, Airbus Military.



**MISSION:** Choosing a fighter is a complex decision, but you don't have to make it alone. You can benefit from the experience of others. Eighteen nations have chosen the F-16, and thirteen were so pleased they chose it again—for performance, reliability, low cost and long life, the same things you're looking for now.

Before buying your first ones, ask the countries who've bought them twice.

**LOCKHEED MARTIN**

**SUCCESS:** The F-16 is the most successful, most affordable multi-role fighter in the world today, and a long future is ahead of it. Continual upgrades keep it easily as advanced as any of its more expensive, less proven competitors. In fact, in many ways it outperforms them. Which explains why people who know F-16s best, buy F-16s again.

**Fig. 2.19** A Lockheed-Martin campaign based on the reduction of perceived risk

*networks, they have to face peaks in usage and quite often use landing strips and ground facilities in rudimentary conditions. One aspect is even more pronounced: airlines acquire, operate and sell aircraft according to financial and cost considerations; largely due to budget constraints military aircraft often have to perform duties at an age of 50 years and over.*

*This situation highlights one major problem the military has to face these days: The aircraft fleets available, their operation, support and the procedures to procure new material still reflect the conditions of the Cold War era where the potential East/West conflict decided on industry structure and employment, aircraft design parameters and country procurement plans. In today's world of asymmetric warfare having to react to a fragmentation of military/anti-terrorism and humanitarian interventions on regional scales, the market environment for military aircraft has*

*changed considerably. The main characteristics can now be described as a buyers' market with need for rapid, logistic and tactical deployment, reducing defence budgets and multinational aircraft projects developed by an international defence industry forced to consolidate and cooperate.*

*Especially the latter aspect reminds of the transformation process the civil industry went through during the second half of the last century. Whereas in the sixties and seventies a multitude of aircraft types and manufacturers existed in North America and Europe, changing market environment and business conditions triggered industry concentration and the emergence of Boeing and Airbus as the world's single suppliers of large passenger aircraft.*

*In essence, the need to consolidate and change their business approach did not emerge originally from inside the airlines or the aircraft industry but was forced upon both players by external market developments (e.g. deregulation). The world's air forces and military industries now have to face a situation similar to what the civil sector experienced a generation ago; and there the market conditions are not that different. Apart from the known changed market structures, deliveries for new civil and military aircraft depend to a large degree on the replacement of existing fleets where "home made" products are being substituted by off-the-shelf purchases.*

*Today the industry does not just sell aircraft but is "selling solutions" to resolve a customer's known problem has become the major argument for providers of civil and military capacity alike. Another example could illustrate this: At the beginning of the civil jet era most airlines owned their aircraft. With traffic and capacity needs growing, the balance sheets of major airlines could no longer afford a huge amount of new capacity to be added. The result was the emergence of leasing schemes to enable airlines to take delivery of new aircraft.*

*The specific problems which military programmes still face should not be neglected, such as reducing procurement budgets and often critical public acceptance with regard to defence budgets. The main constraint, however, is the industry's need to deal with governments and affiliated non-business oriented organisations which make the procedures complex, time consuming and expensive. To make things even more difficult, the ease of purchase procedures to be followed in many countries may require changes to existing legislation or even the constitution. To respond to an evolving market environment and to learn from the experience of the civil side of the business, the military industry will nevertheless have to turn its attention to a better understanding of (potential) key customers, their needs, budgets, procurement priorities, political environment, decision makers, mentality and cultural differences. To provide a solution to a country's equipment problem and to enable a country or Air Force to acquire needed capacity, aspects of financing, offset/compensation requirements and industrial participation are of overriding importance for any sale of military equipment. In the end, civil and military programmes share the same marketing objectives: Obtaining customer acceptance, i.e. a positive decision by the Management (or Politicians) and a budget approval by the Board (or the Parliament respectively).*

*Ways and means to apply commercial practices to military contracts exist already in the form of Output Based Contracts. The only deliverables are the number of aircraft and associated core support services. The output is then defined as aircraft specification plus quality and airworthiness conformity. This is contrary to past habits where the contract defined the design and the prototype development process, often at “cost-plus” conditions; batches of orders were then, hopefully, subject to follow-on orders and budget availability. The Airbus Military A400M programme was launched on the basis of a fixed-price contract for a single phase development, production and support programme and with this principle paved the way towards “modern” market oriented contract signatures.*

*Another possibility to improve the procurement process exists in the form of “Smart Acquisition”, an initiative by government procurement agencies to reduce acquisition cycles and to establish off- balance sheet (budget) financing principles. By purchasing equipment off-the-shelf, governments get capacity quicker, on time and, most importantly, have to cooperate closely with industry and financing institutions. Public-Private-Partnerships (PPP) and Private Finance Initiatives (PFI) are tools which are increasingly employed in large scale government investments and are obviously not limited to defence procurements. The introduction of the Airbus A330 Multi Role Tanker Transport into the British Royal Air Force seems to be an encouraging result of the application of these new financing schemes.*

*Military cooperation plans between countries and Air Forces progress rapidly. Promoting aircraft to a group of countries or supra-national organisations (NATO, Asean, UN, African Union,...) for joint ownership or leased operations and support can over the long term further enhance its chance of a successful market penetration.*

*To change the orientation of a corporation or a government agency (like a Department of Defence or an Air Force) requires that the human aspect must not be overlooked. Under the given set of new and future market conditions it's now time for the often bureaucratic national procurement organisations to review their responsibilities and processes and to adapt a more commercial and financial understanding by all those involved in procurement decisions. The learning process can be painful and costly for manufacturers and customers alike and managements of the civil aircraft and airline industries learned their lesson during the second half of the last century, a sign that “The markets are NOT much different...” (Fig. 2.20).*

### **2.2.5 Bidding**

In the context of public markets, the authorities establish regulations so as to optimize selection of the best possible supplier; thus they ensure publication of the bid and impartiality between the candidates, while trying to minimize the risk of corruption. There are three types of public buying:



**Fig. 2.20** A400M is a modern military transporter

- *Negotiated contract or mutual agreement*: below a certain amount, the manager chooses the most competent company candidate as he sees fit, without going through any formalities. This selection can be made with or without competition. This procedure, which is the simplest, is the most common in terms of orders or work projects. It offers greater flexibility without top-heavy administration, but it does not allow for a posteriori control.
- *Formal procedure by allocation (bidding)*: this is based on the principle of the lowest bidder. The administration establishes specifications which are distributed to candidate companies. Beyond a pre-defined time limit, the company offering the most cost-effective solution is the winner. This procedure includes three phases. A first selection in a public session based on administrative criteria, a second non-public phase which involves eliminating candidates on the basis of technical criteria. The third phase in a public session which includes the reading of financial propositions, whereby the least expensive one is selected. To encourage competition, this procedure is accompanied by mandatory advertising in specified media (official press and/or trade press). This procedure is less and less common. While this method effectively reduces the chances of corruption, it can incite suppliers to save money on production costs, which can result in a lower quality product or service in spite of specifications.
- *Formal procedure for invitation to tender*: this procedure is becoming increasingly common in most countries. It has much in common with the procedure described above, in particular as regards advertising. However, it corresponds to the logic of the best tender: after comparing proposals submitted by different companies, it is not the lowest cost solution that is chosen but rather the best one in terms of the supplier's commitments. Another difference lies in the fact that selection sessions are not public.

By definition, public markets depend on each country's or each free exchange zone's particular regulation. Decision makers are often torn between the desire to favor local players (who have an important economic role, but also a social or political one in the community) and the desire to optimize economic competition to obtain the most advantageous conditions.

In the framework of public markets, two types of players dominate:

- Politicians, who are generally elected officials. They need short-term results before the next elections. They can be sensitive to qualitative arguments such as a project's potential detrimental effects for inhabitants, a risk of pollution, etc.
- Civil servants and specialists whose role is to ensure the continuity of projects in light of eventual political changes. This second population is mainly sensitive to rational and quantifiable arguments.

It should be noted, that in many countries, private companies have borrowed from these procedures by launching similar consultations with the aim of rationalizing their strategic purchases.

The role of “commercial engineers” consists mainly in informing political leaders and experts about the different techniques and options available for the project in question. However, this must be preceded by building contacts and networking.<sup>22</sup> The more the engineer gets involved upstream, the more access he will have to information. He will then better understand the explicit and implicit expectations of the main decision makers. On this basis, the company employing him will be able to develop a more attractive proposal, as it is closer to the needs of the decision makers.

### **Focus on General Procurement in EADS/Airbus Group: “A Sourcing Strategy”**

- *EADS/Airbus Group sourcing strategy aims to develop a global supply chain that enables the Group to create a more competitive cost base while gaining access to strategic markets. To drive this business transformation, EADS/Airbus Group Sourcing Network supports Airbus to identify new potential partners around the world that can meet its quality standards and optimize its existing assets.*

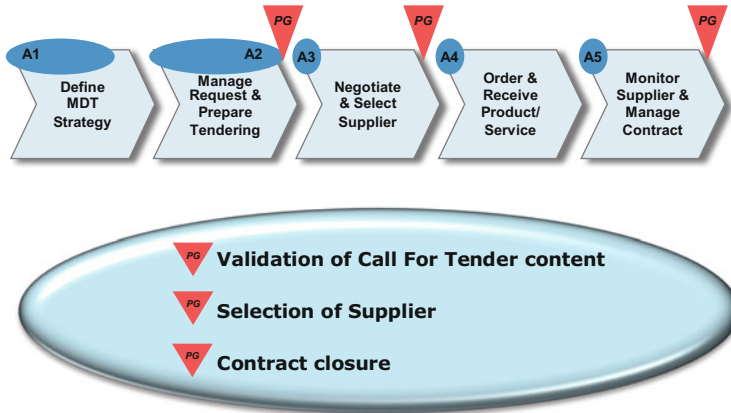
*The EGP (EADS/Airbus Group General Procurement) is an EADS/Airbus Group global Service, hosted by Airbus that manages general procurement on behalf of all EADS/Airbus Group Divisions (Airbus, Airbus Military, Astrium, Cassidian, Eurocopter, and Headquarters).*

*General Procurement covers procurement of « non-flying » elements (even if some of them can have an impact on the Aircraft conformity or safety) with goods or services such as:*

- *Product Development,*
- *Facility Management & Production Services,*
- *Human Resources & Corporate Services.*

*Procurement activities are driven by Multi-Division Teams (MDT): MDT is a network of people empowered to represent EADS/Airbus Group Divisions in a procurement process. MDT concept is similar to MFT (Multi Functional Team) concept (which is widespread in the design, development and production activities), including multi-divisions representative's concept.*

<sup>22</sup> Cova, B., & Salle, R. (1999). *Le marketing d'affaires*. Paris: Dunod.



**Fig. 2.21** The EGP operational process (Source: Adapted by Samir Bellik from EADS/Airbus group General Procurement Processes & Tools Awareness, 2011)

*A MDT is generally composed of:*

- A Buyer,
- A Requester/User (the person who needs/use the service/good to be procured),
- And any other participants according to the complexity of the project/product to be procured (Quality, Legal, Program...).

*The EGP core processes (EGP instructions) are already harmonised and are in use (Fig. 2.21).*

## 2.2.6 E-Procurement and the Development of the Marketplaces

### 2.2.6.1 From Communication to Sales

Presence on the international market ensured that aeronautics and space companies rapidly became interested in the opportunities offered by Internet for research and broadcasting information (external and in-house communication).<sup>23</sup> Although a few parts manufacturers had dabbled in e-business, it was mainly the airlines who set up real trading sites in the aerospace sector. This commercial use of Internet centered on the sale of tickets on-line via a “one to many” outlet, and became an extra distribution channel.<sup>24</sup>

### 2.2.6.2 E-Procurement or Managing Purchases with the Internet

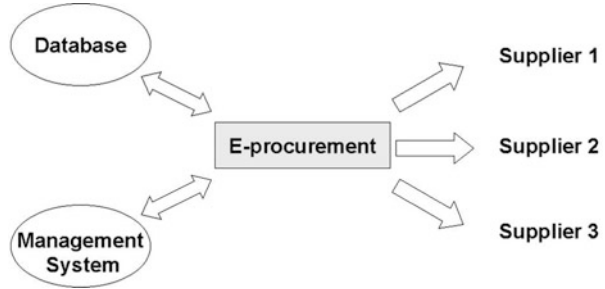
For the aeronautics sector, Internet rapidly became a tool which facilitated the supply process. When the latter uses the Internet it is called e-procurement, in other

<sup>23</sup> See Chap. 12, Selecting Media.

<sup>24</sup> See Chap. 9, Selecting Distribution Channels and Sales Team Management.



**Fig. 2.22** The principle of e-procurement



words the on-line management of the company purchases. It consists of detecting simply, rapidly and efficiently potential suppliers, evaluating what they have to offer and then selecting the best adapted and competitive solutions. It uses a data base and a management system (ERP).

For instance, the general procurement processes in EADS/Airbus Group passes through the e-sourcing tools. The tool used in EGP is “iSource”, an Ariba tool as SaaS (Software as a service), where EADS/Airbus Group does its contracts management, sourcing & procurement projects, spend visibility & reporting and the supplier performance management. All the EGP processes for sourcing of all the divisions are fully processed through the iSource tool (Fig. 2.22).

The main advantages for the company are:

- A reduction in costs,
- Control of end-user (employee) spending and redirection of orders to approved suppliers,
- Arguments for price negotiations with suppliers,
- An acceleration of the buying process (choice of supplier, negotiations, real time order validation),
- Less risk of errors (fewer intermediaries).

Thanks to the suppression of the administrative tasks, the purchasing department can concentrate more on negotiation and partnership with the suppliers.

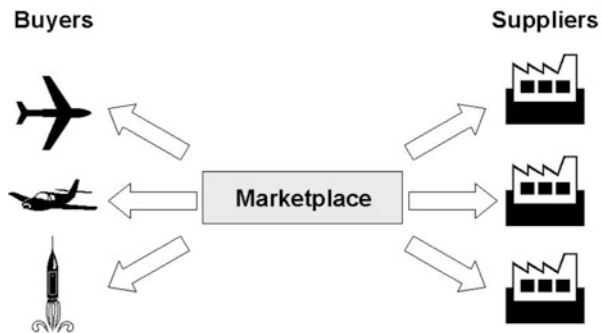
For the suppliers, e-procurement simplifies customer relations, increases the order volume and allows independent on-line management of the products or services offered. Although e-procurement allows an improvement in the efficiency and rapidity of transactions by giving greater flexibility, this new supply mode does not seem to have modified buying behavior. Professional buyers favor known suppliers who have an established brand, and those with whom the company has already worked.

### 2.2.6.3 Marketplaces

There has been a large increase in the number of websites in the aeronautics sector, designed specially to carry out commercial transactions between a large number of



**Fig. 2.23** The principle of the marketplace

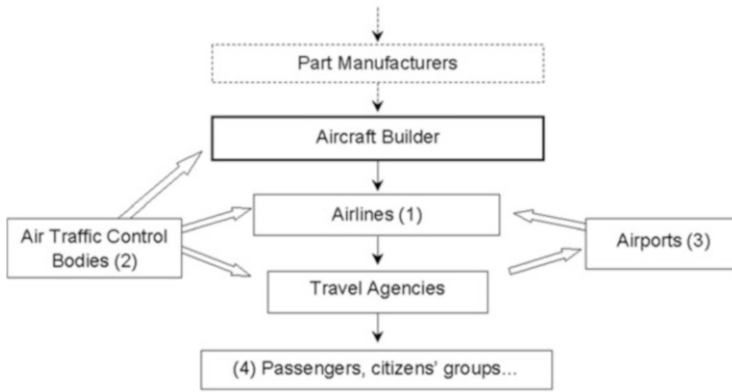


purchasers and a large number of sellers. Called “marketplaces”, these sites bring together on a virtual market place, several people with common interests linked to their activity (“many to many”):

- Parts manufacturers (Original Equipment Manufacturer) and system manufacturers,
- Aircraft builders,
- Parts and component suppliers,
- The operators (airlines, business aircraft operators, etc.),
- Aeronautical maintenance and service centers (Maintenance, Repair and Operations),
- Distributors.

The general principle is simple: the buyers register on the site and put forward their bids (specification, quantity, quality, price, etc.). The site then searches for qualified suppliers, carries out any necessary follow up and puts competitors on line. Suppliers are contacted as soon as there is a bid which concerns them. Generally speaking, the bigger sites also offer other services such as supplying information about the activity sector, on job opportunities, etc. (Fig. 2.23).

After the airlines, the constructors and the parts manufacturers, it is the airports’ turn to go on the Internet. A case in point is the airport management concern ADP (Aéroports de Paris) in association with, its British (BAA, which manages London Heathrow, Gatwick, Stansted, Edinburgh, Glasgow and Aberdeen), Danish (Copenhagen airport), American (Dallas-Fort Worth, Houston, Pittsburgh and Indianapolis airports, and Australian (Melbourne airport) homologues who have developed a common site called World Airports. The latter contains information about services available and a marketplace through which the airports can put forward their bids and group up their purchases in order to obtain better tariffs from their suppliers. The project partners represent an annual traffic of approximately 25 % of the world market. Every year they spend several billion Euros on the development and functioning of their infrastructures.



**Fig. 2.24** Simplified example of a supply chain in the aeronautics sector

### 2.3 Case Study: The Aircraft Constructor's Approach to the Airline's Buying Center

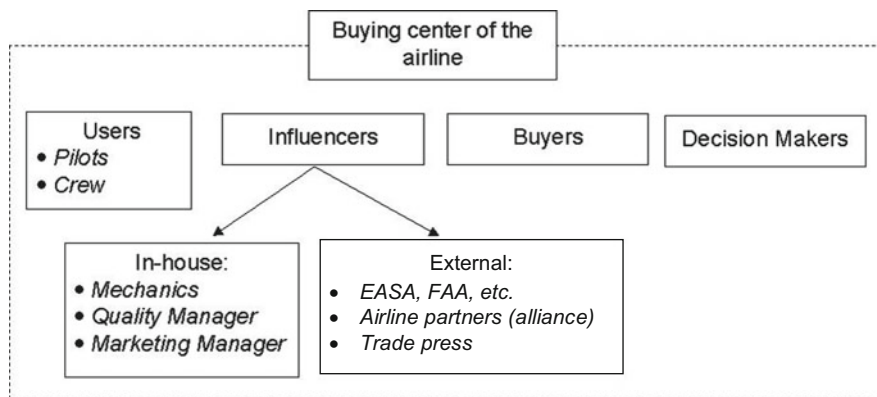
One of the main characteristics of the industrial purchase is that the amount of business that a company does with a particular supplier depends on the activity level of his customers situated downstream. This interdependence of players within a given sector has two important consequences:

- The first is unfavorable: a drop in a given sector's activity will affect all of the suppliers down the line. Thus, when the airline transport market slows down, aircraft constructors have fewer orders for new planes, which in turn affects parts manufacturers and suppliers downstream.
- The second is positive: there are several different levels of marketing influence possible. The direct customer can be targeted, but also his customer's customers, and so on. In other words, to better control demand, the company can widen its marketing range to successive customers situated downstream.

This multi-levelled strategy can be illustrated using the example of an aircraft constructor. A simplified diagram of the aeronautics industry highlights the major players in the sector (Fig. 2.24).

#### 2.3.1 First Action Level (1): The Customer Airline

Of course, the first step is to target the direct customer, the airline. This means identifying the buying center, but which managers need to be contacted? What types of sales arguments should be developed? Each of the managers involved in the buying decision needs to be contacted, carefully taking into consideration their specific needs and key motivations. This calls for a genuine influence strategy designed to create a positive, receptive attitude within the customer structure (Fig. 2.25).



**Fig. 2.25** The buying center of an airline

### 2.3.1.1 Influencers

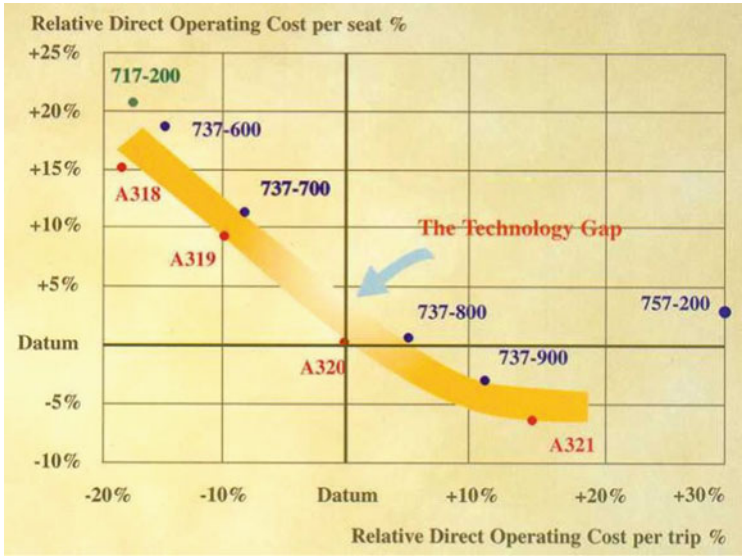
- The marketing director

The aircraft constructor can provide country-by-country market studies on passenger and freight traffic. This requires using macro-economic information (changes in imports and exports, evolution in the number of telephone calls and their average duration. . .) to establish clear and simple indicators, which can help the marketing manager to choose destinations and associated services. The aircraft constructor, who has shown how important the customer company is, will gradually build trust. The results of the first study will raise the issue of modifying the network or the frequency of flights.

Other studies, for example on consumer behavior (business or tourist travelers, nationality, etc.) can further strengthen this process. The constructor assists the airline's marketing department by providing it with reasons for preference, satisfaction, or dissatisfaction of the main customer segments. Thanks to this information, the airline's marketing department can modify its network, or focus on greater on-board comfort (more seat room, individual digital screens, better customized meal service, etc.).

- The operating manager

Above all, the operating manager is concerned with operational costs. However, before approaching this subject, the constructor must check that it is feasible to operate the new equipment that he is proposing (maintenance, training, know-how). Compatibility with equipment, ground support, and the main airports used must also be verified: compatibility with the different fuel filling systems, loading and unloading of baggage, connection of maintenance systems in real time (spectrometry of oils. . .), cleaning services. The operating director is primarily concerned with productivity. Right from the start, the constructor must understand how his customer reasons, and what are the main costs analysis that he uses. Besides flight range and passenger and freight capacity, is the



**Fig. 2.26** Examples of cost studies of the A320 family presented to the operational directors (Documentation Airbus)

average length of stopover time a criteria used by the airline customer? As the relationship develops, the sales representative must understand what are the unsatisfied needs of his customer and his weak points in comparison to other airlines (Fig. 2.26).

After identifying them, another appointment should be made to present comparative information from other players. The difficulty lies in preserving the confidentiality of the information gathered from other airlines to establish costs analysis and other elements of comparison. If not there is the risk of losing the confidence of the prospective customer airline. One solution is to produce average weighted figures from a selected sample of four or five competing airlines. No information is revealed about any one of the companies in particular, rather the average performance extracted from the sample, should allow the customer to improve a specific ratio. As in project marketing,<sup>25</sup> the process is to start from a latent demand and reveal dissatisfaction. This will act as a lever to build a more efficient solution together.

- The maintenance manager  
In the same way, the maintenance department must be addressed by a maintenance specialist. Analysis grids can be used to break down budgets according to the price of spare parts, the cost of storage or transport, cost of labor, and the cost of worker training. Maintenance-oriented arguments need to be developed every

<sup>25</sup> See Chap. 10, Project Marketing.

time that the constructor proposes an advantageous solution for the company (logistics, simplification of tasks. . .).

- A similar procedure must be followed with:
  - The quality department (i.e. presentation of quality measures perceived by passengers),
  - The logistics department (i.e. arguments concerning reliable stocks nearby, or rapid delivery times),
  - Training<sup>26</sup> should also be the focus of special attention, demonstrating its importance in the supplier's action plan.
- The sales manager of airline could be interested in the sales results of competing airlines. By the same token, only significant performance figures should be provided to show a potential gain. At first, the marketing department of the airline might not appreciate this input which could seem like meddling. But because it simplifies its own job, that is to convince in-house sales manager, this involvement is generally appreciated when it is carried out with care. The supplier can help the sales manager to increase his influence on the marketing department. While the marketing department will favorably influence the buying department or the general management, depending on the nature of the main decision maker.

At this level of analysis, it is clear that the influence strategy must integrate a varied number of players who can “sell from the inside”. This genuine lobby for the supplier will likely be in conflict with other managers who in turn are defending the position of a competitor. All of the managers involved in the buying process are part of the “buying center”, which is not limited to buyers but rather includes decision makers, in-house and external influencers and users. The outside influencers include the trade press, design offices, shareholders, elected officials, and civil servants. The influencers can play a role through their recommendations or opinions, the choices envisaged by the decision makers, the buyers or the users. In certain cases, aircraft constructors do not hesitate to address the shareholders of airlines through their main representatives. The financial reports with simulated results and a re-formatted fleet were presented so as to accelerate the decision-making. As far as users are concerned, besides the technicians, of course the pilots are the first concerned by the choice of the aircraft constructor (Fig. 2.27).

- The pilots  
These users are receptive to testimonies from other well known pilots and are particularly attentive to arguments concerning the comfort of piloting, the ergonomics of the control panel, the user-friendliness of digital screens relative to electromechanical monitor. . . Furthermore, the “commonality” of different models in a range make it easier to change from one aircraft to another by reducing the time required for training. Efficiency, duration and place of training are also additional factors that should be supplied to pilots. The “commonality”

---

<sup>26</sup> See Chap. 14, Building Loyalty: Maintenance, Training and Compensations.



**Fig. 2.27** A380 Cockpit

also makes it easier to acquire new skills and to accelerate the pilots' career development. The entire influence strategy used at this first level aims to increase the respective power of each of the customer's managers encountered by providing them with information and arguments that will strengthen their own positions, or in other words, through *empowerment*. By transmitting expertise, the supplier empowers his contacts, with the aim of making them "ambassadors through interest".

### **2.3.2 Second Action Level (2): Air Traffic Regulatory Organizations**

For the aircraft constructor, the second essential level of action consists in approaching the regulatory bodies to obtain the necessary certification:

- For each apparatus and model,
- For each destination and geographic situation.

This means carrying out test flights in accordance with these organizations' specifications. It is essential to plan for this step by maintaining a constant relationship with the different organizations. The aim of the constructors is to favor their technical solutions and arguments in terms of greater safety (linked to the installation of their equipment), thereby setting a new standard which will become the norm and will be an additional constraint for future versions of aircraft proposed by the competition.

### **2.3.3 Third Action Level (3): Airports**

In particular, the airport authorities must be approached in case of an important technical change. A new range of aircraft requires validating ground resistance to different runways and often the building of access roads (bridges, roads).

The essential managers to see are those in charge of operations, investment and new projects, maintenance, quality, communication, and human resources.

### 2.3.4 Fourth Action Level (4): Passengers and Citizen Groups

Aircraft constructors have another influence channel, which until now has been little developed: the end user or the passenger. Aircraft makers have not focused enough on trying to influence the final choices of passengers, whether regarding the purchase of personal or business tickets. With this in mind, Airbus has developed a corporate campaign for selected national American TV channels. The aim is to show target populations that the A340 first and business class has better cabin comfort. In both cases, the aim is to create positive feelings among passengers with the final objective of generating preference (Fig. 2.28).

Aircraft constructors mainly invest in corporate communication, in particular to establish their “citizenship” or contribution to the community. Thus in Europe Boeing explains in an ad in a daily economic newspaper that it is creating jobs in particular in the Massif Central (France) and in Bavaria (Germany). This is illustrated with employee testimonies from subcontractor companies. At the same time, Airbus communicates in the US about the amount of equipment purchased from American companies starting with General Electric engines (in partnership with Snecma), Pratt & Whitney. . . Furthermore, Airbus reaches out to citizens' groups such as associations of people who live in airport zones, thereby demonstrating the company's commitment to environmental protection, in particular by controlling noise levels (Fig. 2.29).

In this way, the supplier seeks to create an “influence network”, starting with citizens' groups who influence the airport management, who in turn influence the airline management. The airline's purchase of the aircraft results from the effectiveness of the influence strategy on the buying department and the entire buying center.

---

## 2.4 Case Study: Airing's Approach to the Buying Center of the Sultan of M

Contrary to what most people think, highly powerful political leaders cannot generally make complex buying decisions such as the purchase of a plane, by themselves. In many ways approaching a special private customer like the Sultan of M is very similar to dealing with an airline; however, understanding the particular cultural context is even more important.

At the Airing marketing department, people recall with amusement the failure of a 1979 negotiation with one of the Persian Gulf Emirates. At this time, commercial engineers trained in an extremely rational approach used traditional arguments to present the advantages of the Airing proposal:

- Fuel savings compared to the aircraft already used by the Emirate,
- The possibility of replacing three aircraft with two Airing planes capable of carrying approximately the same number of passengers as well as the same cargo.





**Fig. 2.28** Airbus press ad to reinforce the TV campaign (Extract from *Flight International*, (2000), 31 October – 6 November, p 8)

Upon reflection, they realized that the two arguments were not only irrelevant but actually negative for Airing since:

- Fuel is an unlimited resource for the Emirate, a major producer. In addition, it is not acceptable to evaluate the royal family's consumption.
- The fact of addressing pilots, by suggesting the suppression of a plane was immediately interpreted as a threat, for themselves but also for the technicians and everyone's extended family.





**Fig. 2.29** Environmental protection: Airbus commitments to the environment

The Airing marketing department had become too used to its traditional customer airlines and had not known how to adapt its approach to the specific needs of the Sultan. The Bobus proposal was selected.

Some 20 years later, Airing marketing had learned how to cater to the special requirements of private customers with enormous buying power. This is true for the sale of an Airing to the Sultan of M. For each request from the technical department or one of the religious leaders, the Airing marketing department responds positively, taking into consideration the fact that the most important thing is to outdo competitors, without focusing on costs: if the customer is satisfied, the bill will be

paid. Besides developing traditional contacts such as with the aviation director, the security manager, pilots, and the maintenance manager, Airing used a tailor-made approach to reach other very important players.

- Right from the start of the negotiation, Airing understood that the throne had already been clearly defined. In particular a very heavy chandelier had already been chosen, made from hundreds of precious stones. The first question asked by the head of the technical department was “Can the chandelier be mobile during take off and landing?” The answer was negative, the chandelier had to remain perpendicular to the ceiling at all times. Given this factor, the engineers had to design a new structure for the upper part of the plane capable of resisting the weight and integrating the required fixations.

During the first test flight, the technical department manager noticed the noise caused by the chandelier’s stones, which would be disturbing for prayer in particular during take off. It was decided to remake the chandelier, mounting the stones one by one.

- The space selected by the Sultan for his room had initially been planned for the air conditioning system. This was a “non-negotiable” point, thus the material had to be placed in the back of the aircraft, creating an imbalance in the distribution of the plane’s weight. Airing marketing thus asked the technicians to add weight to the front of the aircraft (!) so as to reestablish the planned on center of gravity. This was shocking for the technical department who were usually asked just the opposite. The extra weight was obtained by replacing materials for the bathroom. The Corian® from Du Pont Nemours for the bath was “advantageously” replaced by solid marble, gold faucets, etc.
- Long discussions with the religious leader raised certain questions: “What would happen if his Royal Highness died during the flight?” After consulting the sacred texts a solution was found so that the head of the Sultan would always be oriented towards Mecca. The bed was installed on a gyroscopic platform which using a magnetic device maintaining the bed in the desired direction.
- Falcon hunting was a favorite pastime of the Sultan. That is why the person in charge of the Royal birds was not to be neglected. Falcons are sensitive animals difficult to transport. A part of the cargo area was set up for the falcons integrating protective measures in case of temperature differences, vibrations and pressure changes. The Airing system answered the specific needs of the customer: that the falcons be in good health and operational right after landing. This exotic but real example, emphasizes two essential points:
  - There is no one all powerful person, single decision maker. There are multiple people involved in the final decision with varying degrees of influence;
  - In fact, this example falls under the perspective of project marketing. Airing marketing department understood the importance of taking each of the customer organization’s needs seriously, no matter how unexpected. In each case, the head of marketing empowered the person he was dealing with by providing pertinent information. When the head of Airing did not have enough know-how, he turned to outside experts. For example, for a better knowledge of falcon behavior, university theses as well as expert advisers were consulted (Fig. 2.30).



**Fig. 2.30** Falcon 7X business jet by Dassault has a luxurious interior

## 2.5 Purchase Marketing

Purchase marketing, which was first developed in the seventies and applied in the late eighties, improves company performance thanks to more effective buying departments. This means going beyond the traditionally static supply role (waiting for sales visits by suppliers, getting the lowest price, etc.) and considering the buying function not from the administrative angle as a cost management center (operating budget, buyer salaries, computer and office equipment costs of the buying department, etc.) but as a profit center. Focusing outwards, like the marketing department that intervenes downstream, purchasing marketing is responsible for keeping abreast of the best the market has to offer in terms of products and methods. It aims to improve company performance by seeking out the most efficient suppliers, products and services. Without an active purchasing strategy, the company stands to miss out on other suppliers too busy working with competitors, who perhaps can offer higher performance solutions (delivery priority, favored status, etc.).

Better quality more adapted materials, components, or ingredients are very likely to improve the performance of the finished product. Equipment and new production technology can significantly lower the cost price of products manufactured by the company. Through its relationships with current and potential suppliers, the buying department must be aware of competitors' technological advances, but also developments in other sectors, that could be adapted to the company's needs. Thus the buying department has an extremely dynamic role, helping to improve quality and performance and creating value for the company. An example of this is Alcatel Space, which in rethinking the design of its satellite platforms, has applied this process to its internal organization. Guided by the new concepts of the new ISO 9001 norm, the company was able to establish a basis for rationalizing the organization, which quickly produced rational and concrete supply approaches.

### 2.5.1 Different Conceptions of Purchase Marketing

There are different conceptions of purchase marketing (upstream marketing, reverse marketing, inverse marketing. . .)<sup>27</sup> of which the two main types are:

- “Reverse marketing” or applying marketing techniques “backwards or opposite” to the traditional usage. Directed towards customers, downstream marketing has proven effective, hence the idea of applying it in reverse by focusing on suppliers. This involves carrying out market studies on suppliers, similar to those that are traditionally used with customers. In addition, communication campaigns are carried out at supplier conventions or reverse shows: the company presents itself to current and potential suppliers, specifying its main expectations and needs for a particular project.
- “Mirror marketing” which consists in putting the company in the position of the supplier. This second conception is closer to the marketing perspective, aiming this time to appear attractive as a customer. The aim is to sell the company’s needs, making the supplier want to work together.

In reality, these two conceptions overlap, as can be seen by the action methods used, developed further on.

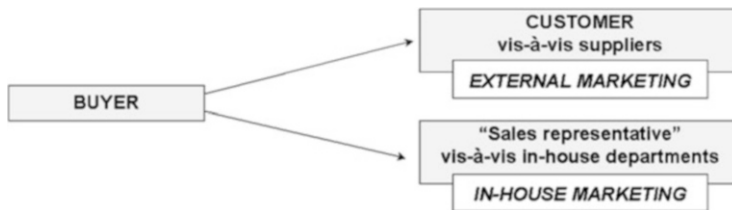
### 2.5.2 Purchase Marketing Objectives

Like traditional marketing, purchase marketing has several specific objectives:

- Supplying the necessary equipment both in terms of quantity and quality;
- Keeping track of the different upstream markets and finding out about suppliers to determine which are the most competitive and the most innovative for which products;
- Knowing how to present the company efficiently and attractively to potential suppliers, clearly explaining the company’s different areas of activity;
- Specifically presenting the company’s needs, in particular those that are not satisfied, formulating the expectations of the main contacts involved;
- Making suppliers want to work with the company, providing arguments on the company’s buying potential, the commercial benefits to the supplier of working with the company (prestige, leader status in the sector) and on potential shared technical concerns or values (quality, technological innovation. . .). The idea being to stimulate competition between different suppliers, so as to develop a balanced supplier portfolio, similar to a desirable customer portfolio;
- Making it easier for suppliers to draw up proposals: instead of holding back on technical data, provide them with maximum information, so that their proposals can be as effective as possible as far as production capacity and quantities are

---

<sup>27</sup> Fenneteau, H. (1992). Les caractéristiques de l’acte d’achat et la logique du marketing amont. *Recherche et Applications en Marketing*, Paris, PUF, 7(3).



**Fig. 2.31** The buyer's double position

concerned as well as from a quality perspective: what are the necessary options ? how to personalize?

- Providing the company with a competitive advantage, by finding a more efficient supplier, who is encouraged to make a product that is better adapted to the needs of the company and/or incited to make an effort on price to work with the company;
- Being proactive: thanks to the exchange of information between the in-house departments and suppliers, the buying department can and must propose modifications: for example, to the production department concerning a particular material or process which would improve production performance, or to the marketing department concerning a particular presentation or aspect of the products offered which would give a higher margin or added value in comparison to the competition.

Although purchase marketing also aims to better control the balance of power with suppliers, above all it is based on marketing rationale, which tries to favor cooperative rather than conflicting practices. This outlook is more common in industrial companies, and in particular in the high tech sector, than in sectors producing everyday consumer goods.

### 2.5.3 Means of Action

The buyer acts as an interface between suppliers and in-house departments (see Fig. 2.31). He represents the company as a customer of the suppliers and as such, he is in charge of “selling” the needs of the company to suppliers. He also represents outside suppliers vis-à-vis in-house departments, handling the “sale” of supplier proposals to different departments: production, marketing, etc.

The buyer has different marketing means available in relation to these two targets.

#### 2.5.3.1 Purchase Marketing and the Outside Target

Besides the traditional methods for gathering information on suppliers (trade press, publishing of bids, regular attendance at the main professional shows), new tools have developed such as:

*Putting needs on-line:* the main advantage of the Internet for the company lies in the capacity to present specific needs and on-going projects to suppliers all over the world. This can lower buying costs by favoring competition and making it easier to compare suppliers' proposals in light of specifications. Nevertheless, this tool is more suited to general purchases than to technologically sophisticated or delicate parts (i.e. space sensors, the side panels of satellites, etc.). In this case, the company is more concerned with the reliability of suppliers rather than low prices. In fact, many secret service departments have gone into Internet spying in a search for valuable information (in particular specific and sophisticated purchases). For security reasons, companies only reveal non-sensitive information when putting their needs on-line.

*Organizing supplier conventions:* the company organizes a day during which it presents its general policy, main orientations and objectives, in-house structure, culture, core values, as well as its commercial and financial profits according to activity. Current suppliers are invited as well as potential suppliers with whom the company is considering working. The organized reception of participants will make it easier to get to know them to work together later.

Participation in Reverse shows: in these shows, as the name suggests, the customers or contractors present their company and their technical requirements. The nature of the show attracts specialized potential suppliers, more concerned by the activity sector. At these shows, suppliers can contact different contractors and vice versa.

After having gathered information and met with potential suppliers, it is necessary to regroup data by segmenting suppliers in terms of the sought after advantages. They can be *classified* according to technical expertise, type of technology used, production capacity, delivery time, geographical area, etc. Each supplier should be considered as unique, as if he were a customer. Each has his advantages and inconveniences, thus the one that will be the most efficient in terms of the company's specific expectations should be selected. The best, most effective suppliers need to be listed, so as to be able to offer the best products. A very efficient *segmentation method* is to analyze the suppliers' marketing strategy. Thus the buying department can compare the advantages highlighted by the different suppliers and then verify their validity with the technical departments.

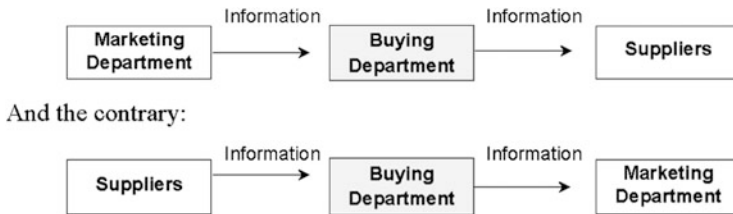
Purchasing managers trained in *sales techniques* are more efficient<sup>28</sup> and better able to react methodically to supplier's arguments, which will be easier to analyze. In addition to better understanding the representatives involved, buyers will be more able to sell the company's needs, and to incite the supplier to propose a solution that will genuinely satisfy requirements.

With this in mind, it is important to mention how suppliers are welcomed. In contrast to the bad habits that are often seen, the company must pay attention to the reception of suppliers by:

---

<sup>28</sup> Gauchet, Y. (1996). *Achat industriel et marketing*. Paris: Publi-Union.





**Fig. 2.32** The essential role of information in purchase marketing

- Planning appointments no later than 3 months ahead of time, even for a first meeting,
- By respecting the appointments made,
- By providing a comfortable room where the supplier can sit and wait, equipped with up-to-date documents on the company and possibly with a telephone, fax and Internet access.

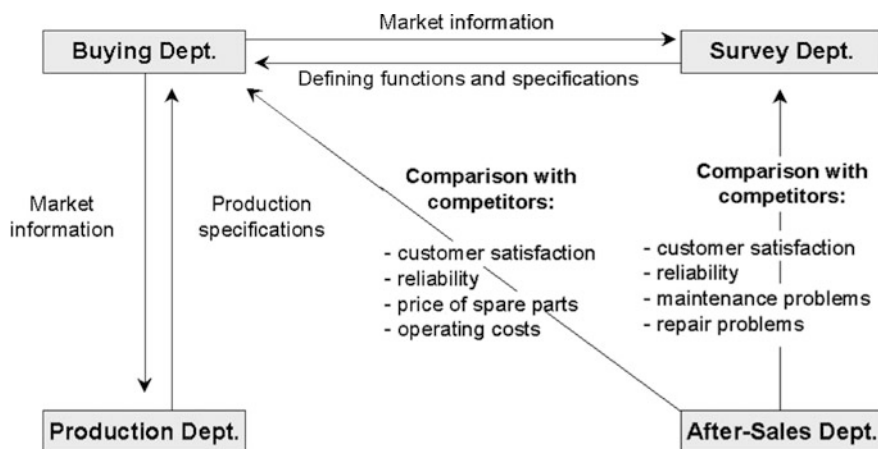
*Ways in which the company could adapt:* the most effective negotiation strategy is the win-win situation, where each party aims to win, while making sure that the other, supplier or customer, is also satisfied with the outcome. This strategy starts with the assumption that every company is more successful when it is surrounded by successful customers and suppliers. This is why a buyer can offer certain advantages to a supplier with whom he wants to work in spite of disagreement about price. Among those arguments that can be made by the buying department during the negotiation, are decreasing the number of listed suppliers so as to increase the business for each,<sup>29</sup> providing the supplier with technical assistance (when the latter is smaller), a commitment to working with this supplier for a designated period of time (capacity to plan on the purchase volume over time), help in diffusing an innovative product or process, especially if the customer company is itself a leader in the sector.

### 2.5.3.2 Purchase Marketing and the In-House Target

Essentially, this involves favoring the communication of technical information between the different departments within the company. The buying department is one of the main players with that of production but, most of the time, the intensity of the information exchange depends on the attitude of the marketing department (Fig. 2.32).

It is important that the marketing and R&D departments inform the purchasing department about on-going projects as early as possible. In fact, in this case, the latter will be able to anticipate the information gathering and supplier pre-selection phase. Furthermore, he will be able to orient the suppliers selected so that they will be able to fine-tune their proposals and options so as to best satisfy the company's requirements.

<sup>29</sup> Fenneteau, H. (1992). Op. cit.



**Fig. 2.33** Exchange of information between the different departments (Source: Purchase & Logistics Department EADS/Airbus Group)

By the same token, the buying department must communicate the information on suppliers as early as possible. In fact, the information collected will help the company to make progress. It is thus essential for the buying department to go outside of the company, visiting shows and factories so as to discover new product and process applications.

To facilitate information transfer, two rules are advisable:

- For the marketing department, the buying managers should be invited to participate in project meetings right from the start;
- For the buying department, factory visits should be arranged with suppliers and marketing managers should be invited to attend trade shows.

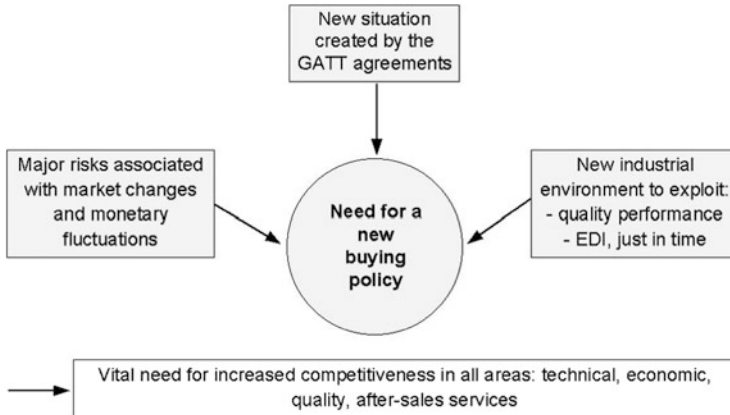
Useful information can also indirectly come from competing companies in the same sector, but even more often from companies outside of the sector. If the marketing department is informed early enough, it could influence elaboration of the products offered. In general, it is important that requests from the marketing department should be satisfied with rapid solutions and the shortest possible achievement times.

Figure 2.33 summarizes the main information exchanges between purchases, studies, production, and after-sales service at EADS/Airbus Group: these exchanges allow the company to better position itself relative to competitors.

### **Purchase Marketing at EADS/Airbus Group**

- EADS/Airbus Group, a world leader in aeronautics and space (Airbus programs, Eurocopter, Ariane...), early on developed a buying policy based on the principles of purchase marketing (in particular in the former French Aerospatiale-Matra). This involved anticipating the end of the sector's growth cycle (end of the eighties) and the resulting price wars, intensified international competition and pressure on costs and





**Fig. 2.34** Reorganization in its context (Source: Purchase & Logistics Department EADS/Airbus Group)

purchase. The president of the group considers that the “changes in markets and the competition incited us to set up a more responsible organization from an economic point of view, more customer oriented”. The development of the competitiveness of products leads to being more demanding (see Fig. 2.34).

The performance and competitiveness of companies in fact depends 50 % if not more on their suppliers. The reduction of cycles and stocks, the optimization of financial flux, quality improvement, cost control, are all factors of progress which involve suppliers or partners of the company, and in turn their most important contacts, the buying department.

The buying policy was accompanied by a reorganization of the buying departments according to activity and project. Responsibility for price estimates (in-house and external costs), supply, sub-contracting purchase were of course maintained and assigned to the different structures. For example, one unit was in charge of buying everything for the structure of the plane, in particular the purchase of aluminum, of titanium, but also mechanical and electrical components. The aim of this new organization was to better take into consideration customer expectations in terms of competitiveness, reactivity, and flexibility. This meant getting involved in the customer’s project as far upstream as possible (a process that is increasingly crucial), while being ever-more aware of cost issues. The priority objectives were established:

- Aim for minimal global costs by in-house optimization of supply,
- Build durable relationships with selected high-performing suppliers,
- Guarantee the competitiveness of purchases through better knowledge of the markets and competition.

EADS/Airbus Group set up pluridisciplinary teams (design office, quality, methods. . .) under the responsibility of a buying manager. A genuine project leader, the latter coordinates and orients all of the exchanges and decisions involving suppliers, with a direct operational link to those who design the aircraft, prepare or pilot its production. This process-oriented approach inevitably leads to rationalizing the organization,

*simplifying interfaces, for the greater benefit of the supplier who is much clearer about the coherence of the information that he receives.*

*Obtaining lower costs starts with optimizing parts right from the design stage by integrating the suppliers' technical constraints. It means reducing the number of standards on the parts: in other words, "recuperating" parts and components from one aircraft to another, even from one range to another, so as to decrease the number of stocks. Reducing the number of suppliers means that to be more demanding, EADS/Airbus Group must still develop the average volume of orders with its suppliers. The most dynamic among them will thus acquire different know-how. In-house optimization of supply involves ensuring that the techniques used for data exchange facilitate information transfer between the contractor and his supplier, thereby approaching just-in-time management. As far as potential synergies with partners, other sources of reciprocal satisfaction need to be established with selected suppliers.*

*The building of long-lasting relationships with high performance suppliers calls for dynamic qualification: EADS/Airbus Group encourages its suppliers to invest in qualification. Regular evaluation will serve as a means of selecting future markets. Sharing the market risks means a reciprocal commitment, so as to share the burden of costs when there are strong market fluctuations or cancelled orders.*

*For long-term contracts, the contractor commits to a long enough period of time to enable his supplier to amortize invested material. In terms of competitiveness clauses, the supplier commits to investing on a regular basis, so as to be able to supply the best solutions. Transparency and the respect of commitments, improve the level of mutual confidence between the contractor and his suppliers.*

*Guaranteeing the competitiveness of purchases above all requires cooperation between the buying department and the design department. The marketing department and a better knowledge of competitors plays a role close to that of cooperation with the design department: purchase marketing and the different types of technological scanning make it possible to situate the choices of the company in relation to competitors.*

*The purchase marketing process was initiated to help improve purchasing performance. For EADS/Airbus Group, purchase marketing is based on both internal and external customer needs. This requires setting up a dynamic system of market studies covering on the one hand, customer needs – the airlines – in terms of functions, and on the other, supplier proposals in terms of know-how. The process also consists in trying to exploit innovative ideas which sometimes come from other sectors.*

- *The objectives of purchase marketing at EADS/Airbus Group*

*To observe as thoroughly as possible the technologies used, methods chosen, services provided, which will give the least expensive and most reliable solutions. The more pertinent the choices, the easier it will be to sell the solutions to airlines. This is why the objectives of purchase marketing at EADS/Airbus Group are to:*

- *Precisely define the buying act as a function of the market resources,*
- *Study improvements to obtain minimum global costs over the complete life cycle of products sold (standardization, modernization, etc.), the purchasing price being one of the elements of global cost,*

- *Use knowledge of the market to negotiate progress plans with suppliers or to introduce new suppliers,*
- *Prepare for product evolutions,*
- *Help in decision-making: make or buy, choice of technologies, products, suppliers. . . ,*
- *To continually be aware of what the competition is doing.*

*This involves collecting, structuring, storing and communicating data.*

*The buying department must ask itself, "in relation to what, with whom, to what purpose, and in what way will the purchasing act be carried out?". While this may seem trivial, in fact these questions are complex, for example when the issue is a Flight Management System for a fighter plane that will be used for 25 years, or solar panels for a telecommunications satellite which is supposed to have a 15 year lifetime without any possibility of repairing or replacing it. Thus the type of purchase must be very precisely defined.*

*And contrary to preconceived ideas, the most important step for purchase marketing takes place above all in the purchasing company. In fact, while there is always one supplier to meet a particular demand, it is vital that the purchasing company very early on eliminates the most constraining choices in terms of technology. This will reduce the number of potential suppliers to a handful. It is best as much as possible to opt for standard, less expensive, and more accessible solutions. It should be remembered that the purchasing price is often fixed 80 % right from the design stage (technical specifications). The aim is to avoid going over budget due to modifications. John Leahy, an Airbus manager said, "Ask yourself, when you suggest a modification, what will it bring to the passenger in seat 41", a symbolic way of saying that customer satisfaction does not necessarily lie in technical perfectionism.*

*However, technical considerations often win out over economic ones owing to the extremely severe technological constraints. One can think of the launching conditions of a satellite. This explains the extreme importance of going to the source to find solutions that will generate gains, and looking to standardize them. As delivery deadlines are increasingly tight, it is often too late at the launching of a program to look for innovative solutions, which by their very nature are riskier and more time consuming.*

*Consequently it is important to look with the supplier for possible ways of improving the product and then freeze them and write the characteristics into the product flow chart. This is a radical change in perspective favoring the bottom-up approach, constructing a complete system as opposed to the traditional top-down approach which breaks down the whole of the upper level and then defines a cascade of interface and performance specifications, down to the basic model.*

*The act of buying is not only concerned with a product but with the technical performance and know how on which related products or a complete system depends. A failure in orbit can rapidly ruin a solidly established reputation and cause a long term decrease in market share. Similarly, the systematic replacement of a part or piece of equipment on a whole fleet of operating aircraft can entail an outlay of several tens or hundreds of millions of dollars. The act of buying is very closely associated with the concept of risk: technological risk (meeting performance*

*and reliability objectives), industrial risk (human resources and means of production), financial risk directly or indirectly linked to supplier performance. The purchasing department plays an essential part in controlling this risk by an in-depth evaluation of the real capacities of the companies upstream (financial solidity, product/market strategy, shareholder structure, etc.) and also by the rigor of the contractual agreement on signature and the strict control of these engagements right up to the end.*

*Once the limits of face to face negotiations have been reached (adjustment of margins and provisions), there remains a whole gamut of cost reductions that the supplier can not make by himself. This is why EADS/Airbus Group made the GREENLOOP system which is an Intranet connecting up hundreds of suppliers to the production center and needs assessment system, often going to the point of linking individual production management systems with those of EADS/Airbus Group. The company has in this way made considerable savings which have not encroached on the profit margins of the GREENLOOP partners, but on the contrary have improved them!*

*Companies are not robots which react in a mechanical way to various requests. The quality of relations between individuals whether at board level or engineers in daily contact during the developmental stages or manufacture, often play a very important role. A deeply conflicting situation on the edge of breakdown or court action can sometimes be unraveled by bringing in new people with no preconceived ideas who, because they want to get things moving, start with a sound base and then reconstruct a badly weakened relationship often dating back many years. The buying manager must know how to mediate in order to get an agreement. The idea of purchase marketing is at the heart of this sort of process which aims to replace balance of power, threats or retaliation by a search for in depth understanding of reciprocal expectations, an unfettered analysis of the respective difficulties and drawbacks, with the objective of finding a balance.*

*Company industrial partnerships are without doubt the most successful form of the buying act, but also the most complex and delicate to set up and manage. They obey some simple rules:*

- The partner companies must have complementary strategies and skills,*
- It must be a long term relationship,*
- The overall profit from the partnership must exceed that which could have been obtained individually,*
- Under no circumstances must the partners lose sight individually of competitiveness requirements.*

*The buying department is the company's fighting force on the downstream markets, but it must know who to defend and to what aim. Buying is effective when we can see clearly what (what product, performance, life expectancy, etc.) and for whom. The Airbus system was constructed over 30 years on an admittedly solid and complex industrial system, but one in which each participant had their role. The Germans from DASA would not think of manufacturing the wings produced by their British BAe partners. Similarly it would not cross Aerospatiale-Matra's mind to make engines.*

*A company has become mature once it has made a clear choice between "Make or Buy". Knowing how to control what has been delegated to others because they will do*



**Fig. 2.35** The main axes of purchase marketing (Source: Purchase & Logistics Department EADS/Airbus Group)

*it just as well, or better and thus freeing human and financial resources for other activities closer to the company's main skills. This strategic notion of Make or Buy is essential for the construction of an efficient purchasing policy. Purchase marketing is there to feed it with essential information concerning supplier market resources. Conversely, once the main lines have been drawn, purchase marketing can offer coherent buying strategies.*

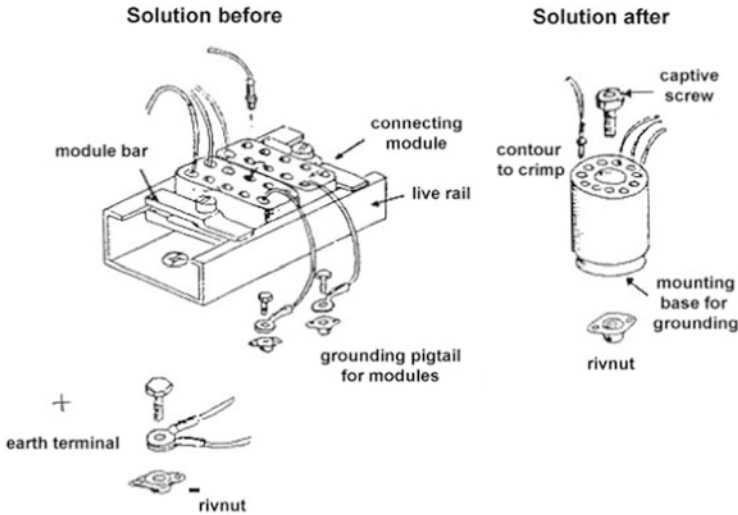
### 2.5.3.3 Market Surveillance

Market surveillance is an important component of purchase marketing. EADS/Airbus Group makes the distinction between on-going general market surveillance and dynamic surveillance, targeted by a precise need.<sup>30</sup> Basically this entails studying all the company's customers in order to define the types of needs and, in the event, the means to be put into place. It is thus a question of collecting information in order to know the market and the competition better. Subsequent analysis of this information makes for a more effective purchase marketing action plan.

The following diagram shows the three main axes given to EADS/Airbus Group purchase marketing (Fig. 2.35).

EADS's purchase marketing field of investigation, and thus its market surveillance system is worldwide. It is a question of being informed about the opportunities on offer from the different world suppliers and taking the initiative.

<sup>30</sup> See Chap. 3, Business Marketing Intelligence.



**Fig. 2.36** Descriptive and simplified diagram of an earth module (Source: Purchase & Logistics Department EADS/Airbus Group)

In addition, market surveillance can sometimes concern the other activity sectors, e.g. automotive.

EADS/Airbus Group offers an interesting example of the application of different market surveillance systems: technological, competitive, commercial and environmental.<sup>31</sup>

#### 2.5.3.4 An Electrical Sub-System Equipment Example

In the electrical sub-system equipment domain and especially for connectors, the example of benchmarking applied to an earth module can be cited. This module is designed to connect aeronautical equipment. By taking solutions found in the automobile sector, the design of this module has been reviewed and improved. This optimization has been made possible by linking the skills from the design office and the purchase department.

As can be seen from the diagram in Fig. 2.36, the first result of this optimization has been the considerable reduction in the number of parts used in the module.

But in addition to reducing the number of parts, the product performance is improved. The module offers more connection possibilities while at the same time taking up less space and being lighter. It gives a reduction in fitting time and easier access and maintenance.

In this way this new solution allows an economic improvement, particularly in terms of initial price and cost of setting up. It has meant getting a product with improved performance which, developed for the ATR program, has been extended to include the Airbus program where it is original equipment starting with the A320.

<sup>31</sup> See Chap. 3, Business Marketing Intelligence.

<http://www.springer.com/978-3-319-01353-4>

Aerospace Marketing Management  
A Handbook for the Entire Value Chain  
Malaval, P.; Bénaroya, C.; Aflalo, J.  
2014, XV, 590 p. 375 illus., Hardcover  
ISBN: 978-3-319-01353-4