INTERNATIONAL PROCUREMENT IN PET PRODUCT BUSINESS

Sanna Maria Kujala

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KUJALA, SANNA: Lemmikkieläintarvikkeiden kansainvälinen hankintatoimi

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Hankintatoimen ja organisaatioiden hankintayksiköiden vaikutus ja tärkeys on kasvanut. Seurauksena tästä, hankintaa ei enää käsitellä yksittäisenä operaationa, vaan organisaation markkina-arvon tuottamiskykyä suoranaisesti mittaavana, useampien prosessien yhtälönä.

Yksi mielenkiintoinen osa-alue, jossa hankintatoimella on merkittävä ja kokonaisvaltaisesti tuottoon vaikuttava asema, on lemmikkieläintarvikeala. Alan tavarantoimittajien kansainvälisesti laaja hajautuminen, ja Suomen paikallisten markkinoiden väistämättömät rajoitteet tekevät lemmikkieläintarvikkeiden hankinnan pääosin ja tapauksittain jopa yksinomaan mahdolliseksi maan rajojen ulkopuolelta.

Tämä rakentava, kvalitatiivinen ja teorialäheinen, käytännön esimerkillä varustettu tutkielma on tarkoitettu tarjoamaan lukijoilleen laajemman ja kokonaisvaltaisemman teoreettisen esittelyn kansainvälisestä hankintatoimesta ja sen soveltamisesta lemmikkieläinalan tuotteisiin. Pääasiallisina tiedonlähteinä on käytetty sekä kirjoitettua materiaalia, kuten internetjulkaisuja, lehtiartikkeleita, oppikirjoja ja muuta ammattialan kirjallisuutta, että myös osallistuvaa havainnointia ja lemmikkieläintarvikkeiden hankinnan alalla markkinointipäällikkönä ja ostajana kertynyttä henkilökohtaista työkokemusta ja osaamista.

Suomessa lemmikkien kasvavan määrän ja liitännäisten tuotteiden selkeästi kasvavan kysynnän vuoksi olisi aiheellista tutkia lisää paikallisten kuluttajamarkkinoiden kasvupotentiaalia. Koska lemmikkieläintarvikealan odotetaan edelleen lama-ajasta huolimatta kehittyvän vakaasti, voidaan ehdottaa jatkotoimenpiteinä kahta mahdollista tutkimussuuntausta.

Asiasanat: kansainvälinen hankintatoimi, lemmikkieläintarvikkeet

ABSTRACT

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KUJALA, SANNA: International Procurement in Pet Product Business

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The influence and importance of procurement and procurement departments within organizations has increased. As a consequence procurement is no longer considered a standalone operation but a set of processes that link directly to the organization's ability to deliver value in the marketplace.

One interesting area where procurement can make a significant difference in overall profit is the pet product industry. With a globally distributed supply base and unavoidable limitations in the local Finnish market, sourcing of pet products is mainly possible and to some extent only reachable internationally.

As a constructive research, this qualitative theoretical study with a practical approach is intended to readers seeking a wide theoretical introduction to procurement and its application to pet products, aiming to create a holistic picture of cross-border pet product trading business in Finland. The main channels of information and research include written materials such as internet articles, journal papers, specialized magazines, guide books and other professional literature, as well as participant observations and personal knowledge resulted from years of working experience in pet product purchasing as a marketing manager/buyer.

With a rising number of pets in Finland and a clear demand for dedicated products, the growing potential of the local market could be further explored. As the pet product industry is expected to steadily develop in spite of current recession times, two future study directions are suggested.

Key words: international procurement, pet products, sourcing, case-study

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1 INTRODUCTION

1.1 Background and motivation

Along with the growing tendency of modern organizations to outsource more and more services and materials, their dependency on the competitiveness of their suppliers has increased. As a result, procurement is now an even more vital part of business operations. Some of the factors that have intensified the influence and importance of procurement departments within corporations include: growth in number and variability of products, decrease in product life cycle, and more complex logistic operations and supply chain. The new strategic position of procurement can be also attributed to raised customer expectations, increased local and international competition and higher number of supply sources and distribution channels. If not far in the past procurement was seen as a standalone operation, it is now considered a set of processes that link directly to the market and the organization’s ability to innovate and deliver value in the marketplace (Goliath 2006, 1; Cavinato & Kauffman 1999, 1; Bowersox, Closs & Cooper 2002, 2-30; Barrat & Whitehead 2004, 195-215, 235-250; Monczka & Trent 2003, 607-608, Wild 2002, 114-131).

Theoretically speaking the fundamental principles of procurement can be successfully applied in nearly all business areas, whether the supply is tiny paper clips or large steel bars. However, one interesting and rather new territory where international procurement can make a significant difference in overall profit is well exemplified by the pet product industry. Trending from simple pet necessities to complete modern “lifestyles”, the importance of products targeting pets and their carrying owners has now increased considerably. In parallel, the economic growth in developing countries has made the geographical market for such products larger than ever. Extending from basic examples of modern pet products like toys, cages, special foods, beds, and life-vests all the way to hi-tech self-cleaning litter boxes, treadmills, GPS tracking collars, and healthcare devices, the product variety has grown extremely and with it the demand in quality and style. Value-added services and the introduction of pet-walk-in stores have also amplified the pet’s role as a direct customer in the pet product industry. With a globally distributed supply base and unavoidable limitations in the local offer, sourcing of pet products is mainly possible and to some extent only reachable internationally.

From an educational/professional perspective this constructive research is intended for readers seeking a wide theoretical introduction to procurement and its application to pet products, being meant to bring a rather general image, understanding and knowledge to the topics. On a more personal level, summarizing these subjects has brought valuable updates and light in own professional life and partially in the private one as well, as a pet owner.

The main channels of information and research include written materials such as internet articles, international conference and journal papers, magazines, guide books and other professional literature as listed in the last chapter of the manuscript. Additionally, thoughts expressed here have been based on participant observations and personal knowledge resulted from years of working experience in pet product purchasing as a marketing manager/buyer.

1.2 Methods and goals

Addressing matters of marketing, economics and supply chain management, this qualitative theoretical study with a practical approach tries to create a holistic picture of cross-border pet product trading business. The major general theories of international procurement and the practical aspects of pet product purchasing are introduced from a perspective of small and medium size organizations.

The study starts with a short introduction to procurement defining its role and objectives, and continues by addressing matters of cost, price and quality, three key factors with heavy influence on most purchasing decisions. Going deeper into the field, the typical ways of organizing procurement are next discussed in terms of structure, process, planning and services. Revealing then the common techniques of supplier management and discussing transportation and related services, the challenges of international procurement and characteristic terms are presented and followed by aspects of ethics and legal matters. The study continues with the particularities of pet product purchasing and a generic case-study closing with a short summary and a list of references for further consideration.

Though many other interesting angles of procurement such as complex logistic networks, warehousing, purchasing in multi-divisional organizational structures, and quality control and management theories deserve far more attention, they are left for further study partly due to their degree of complexity but also to their smaller relevance to this introductory study.

2 PROCUREMENT

2.1 Definition

A general description of *procurement* is often given as the process of acquiring materials of the *right* quality, in the *right* quantity, at the *right* time, at the *right* price, and from the *right* source (Waters 2003, 18; Quayle 2006, 52; Heinritz, Farrell, Giunipero & Kolchin 1992, 10). The meaning of this definition is therefore highly dependent on how the term "*right*" is understood and interpreted, which naturally leads to policy decisions and case analyses of most profitable options prior to the actual act of procurement.

2.2 Role and objectives

Regarding its role and main objectives procurement should:

- Purchase materials at lowest possible cost maintaining however the required standards of quality and service
- Maintain profits and a competitive position with respect to materials
- Keep the minimum feasible investment in material inventory
- Avoid waste and excess of materials
- Ensure continuity of material supply
- Analyze and report the long-term availability and costs of key materials
- Continuously look for alternative ways, products, and materials that could improve the profitability and efficiency of the organization

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 10)

Being assigned to procurement and able to commit funds, the *purchaser* or *buyer* how more commonly known is the legally authorized agent or entity that carries the *act of procurement* in the name of the company (Heinritz, Farrell, Giunipero & Kolchin 1992, 11). Though fully responsible and officially authorized, in his actions the purchaser/purchasing department should always keep in mind that:

- The need to buy comes from other departments that also define the right quality leaving only to decide from where and how to buy
- It should handle all the contacts with sellers and their representatives, from first sales inquiry to invoice acceptance; furthermore it should also monitor the eventual technical contacts to ensure freedom of negotiation and choice in supplier selection
- It is responsible to check the purchase requests versus needs, and may suggest quality and quantity modifications on particular orders for more economical and efficient operations
- It is responsible of the commercial aspects of the purchase such as: price, contractual terms and conditions, packing and shipping instructions

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 12)

As a function procurement should always be considered on the background of its service and cooperation with the other business departments or internal customers (see figure 1). It is then obvious that although not directly controlled by production a primary function of the purchasing department is to inform, serve and satisfy it within their close cooperation and common interest in effectively contributing to overall profits of the company (Baily, Farmer, Jessop, & Jones 1994, 35).

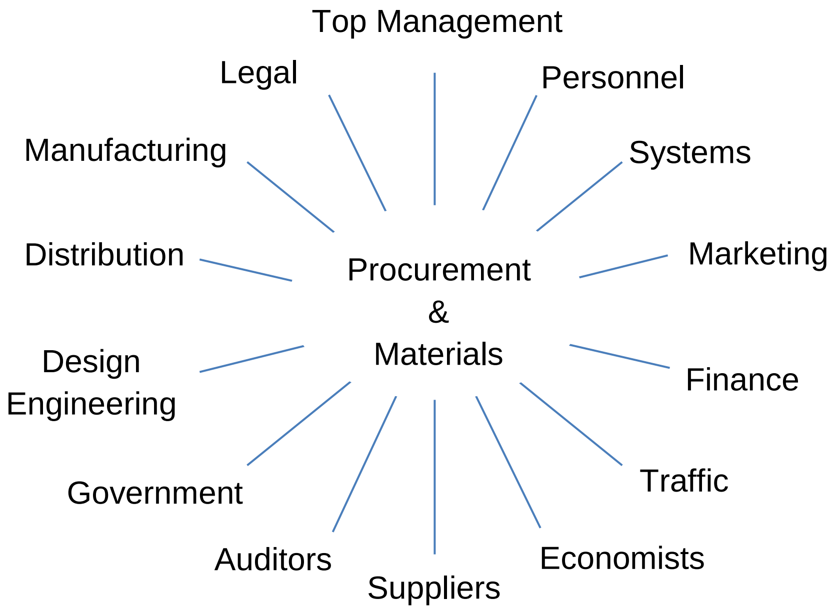

FIGURE 1. Procurement and materials interfaces (Heinritz, Farrell, Giunipero & Kolchin 1992, 17)

3 MAJOR DECISION FACTORS

In procurement, the cost, the price, and the quality of the material being purchased greatly influence the final decision. The order in which these three key factors are considered varies from one procurement department to another but rationally speaking the material should always fulfill at least the minimum required quality specifications.

3.1 Quality

As a starting point, quality should be properly defined for each product so that:

- The procurement department is aware of exactly what is required
- The requirements are clearly described in the purchasing order and eventual contracts
- The supplier is fully informed of the quality requirements
- Suitable means of testing and quality inspection are available
- Provided that the quality requirements are fulfilled, the delivery will be accepted
- The quality specifications enable the supplier to build quality into the product

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 130)

According to Heinritz et al. (1992, 130), during the initial process, the quality and performance specifications which ultimately are the responsibility of other departments should be limited to the essentials leaving place for availability and value considerations. With this in mind, no changes should be made to the requirements, without the full approval of the departments triggering the process.

Quality in the context of procurement is practically represented by the sum of the properties of the material/product targeted, preferably under some available commonly accepted standards. To ensure that suppliers can be clearly and fully informed of the requirements and that a proper assessment of the received items is later possible, these properties should be measurable and well defined in terms of: performance, serviceability, features, reliability, conformance, durability, aesthetics, and perceived quality (Garvin 1984, 29-30).

Depending on the type of material being purchased, the quality could be generally assessed by:

- Measurements (chemical, physical, dimensional) – based on a commonly known and accepted standard of measurement
- Market grade – applies to commodities graded by governments or private agencies
- Brand – the manufacturer's own brand name or defined as "as equal" to one in quality terms
- Performance and use specifications – direct quality indicator that promises desired results, lowers costs in specification writing, and stimulates supplier ideas
- Sample – simple method that avoids specification costs by requesting a sample or asking the supplier to match the quality of a sample sent by the buyer
- Commercial standards – increase in availability and supply sources, better pricing than special items, less risk in communication errors, reduced number of special items in inventory
- Formal specifications, drawings/schematics, internal specifications – permit detailed inspection, are precise and cheapest to specify but frees the supplier from liability provided the specified parameters are met

(Heinritz, Farrell, Giunipero & Kolchin 1992, 132-136)

Involving quality, a possible approach to achieve savings through procurement is commercial standardization and stock simplification which can result in lower pricing, inventory, and inspection costs as fewer items are to be stored (Cavinato & Kauffman 1999, 659; Quayle 2006, 214). Though obvious, this process if often hard to implement effectively in practice due to resistance from marketing and design departments oriented towards unique, branded items, or their feeling that in-house designs are "better" suited than standard commercially available items.

To compensate for increasing competition and consumer demand levels, some of the actions that can be taken within procurement are:

- Make the supplier assume the responsibility and costs for quality measurements
- Ask for statistical process control documentation such as Statistical and Control Charts and Cause and Effect Diagrams to assess quality during the manufacturing process (i.e. eliminate inspection by continually improving the process)
- Raise quality demands as much as possible
- Certify and acknowledge suppliers with high quality performance standards
- Offer process-control techniques training to the supplier and technical assistance in setting it up
- Determine the supplier's capability to meet the quality requirements through on-site visits

(Foster 2004, 252-279)

Still related to quality, with each delivery it is good practice to properly inspect and test the materials in order to confirm or certify the purchasing action and assess whether the contract requirements have been met. In case of unsatisfactory results, the supplier should be immediately notified of the situation and the case handled by the purchasing department through one of the several procedures available:

- Outright rejection – the supplier is notified and the goods are returned at the supplier's expense
- Return for replacement – the suppler is notified of the flaw and a correction or a satisfactory solution is expected; particularly applied to manufactured parts
- Technical or engineering adjustment – a supplier representative will generally make the necessary adjustments on site or work out a satisfactory solution of nonconformity
- Price adjustment – in case the materials are still usable though not completely in accordance with the purchasing conditions; a price renegotiation according to the value actually delivered may be an acceptable and fast adjustment solution

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 208; Bowersox, Closs & Cooper 2002, 131-143)

3.2 Price

A major focus in every purchasing operation is of course the supplier's price, but the overall cost including purchasing and delivery prices, as well as internal expenses for acquiring, managing and using the product or the service, is the one that should matter most in procurement. For this reason a clear understanding of the price-cost and more important value-cost trade-offs is necessary for effective purchasing.

As figure 2 shows, generally speaking the value brought by purchased materials increases significantly only up to a certain level, while the cost will continue to increase rapidly beyond it. The value comparison can be made in terms of price alone only when quality has been strictly defined internally in a clear final form. In these conditions, the lower supplier price would be naturally sought as it would bring the greater value. In practice, this only demands for a reasonable judgment over the significance and therefore the individual value of the material being purchased in the context of profit and possibly external image. For example when purchasing products with very close quality properties, branded material though often more expensive may not bring any added value to your own product and possible even pass unnoticed.

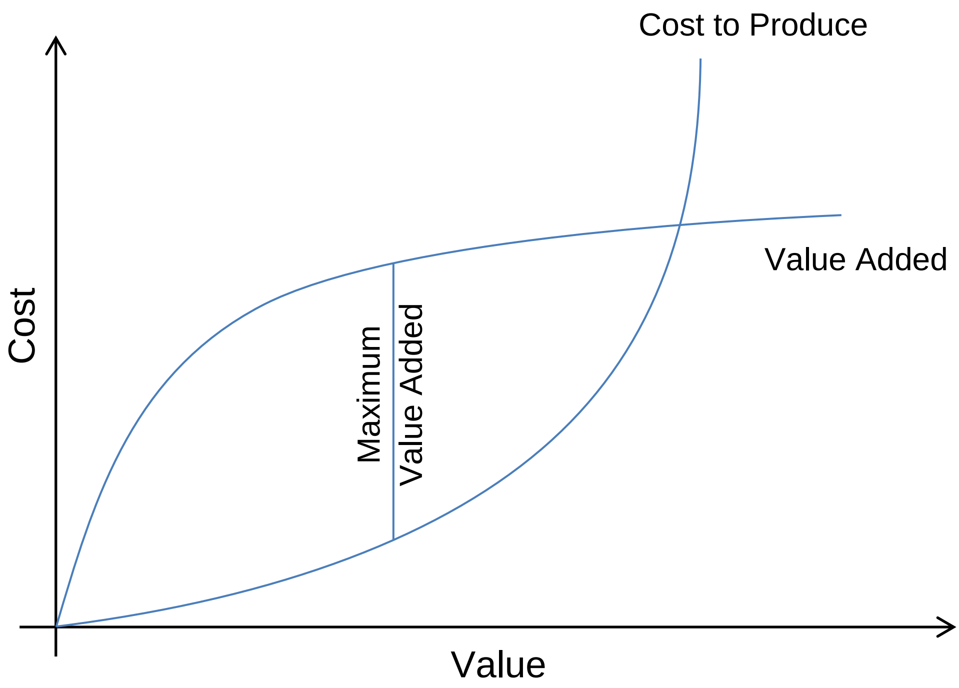

FIGURE 2. Value-Cost trade-off (Heinritz, Farrell, Giunipero & Kolchin 1992, 206)

Some of the commonly used price analysis methods are:

- Comparison of Competitive Bids – asking multiple suppliers for prices on same materials and comparing them in terms of total costs (time costly)
- Comparison of Prior Quotations – comparing recent and past quotations (up to 24 months) of the same material if waiting for competitive quotations is not a feasible option
- Comparison of Published Price List – when materials are same or very similar to ones available in Published Price Lists taking into account possible discounts (trade, quantity, cash, seasonal)
- Prices Set by Law or Regulation – when prices are set by a law or regulation and a “pronouncement” referencing the pricing structure is used

- Similar Item Comparison – for rather particular items it is possible to compare the ones that are similar to those being purchased through a statement as to why the common item will not meet the specification
- Rough Yardstick Comparisons – item comparisons based on measurable rates such as price per kilo, per horsepower or per test sample

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 208; Cavinato & Kauffman 1999, 438; WHOI 2011, 1)

3.3 Cost

Regarding the basic elements for cost analysis, the supplier proposals can be analyzed by considering: material costs, direct labor costs, overhead costs, general and administrative expenses, and profit (Heinritz, Farrell, Giunipero & Kolchin 1992, 221). In a real cost breakdown situation, each of these categories can be further divided in smaller bits which are easier to understand, observe and control in the context of overall cost.

Following an adequate price analysis, it is sometimes good practice to aim for a strong fixed-price contract as the price will remain unchanged and the supplier's effectiveness stimulated. However, the risks associated with such a long term arrangement are variable (see table 1) and should be always carefully considered.

In the particular case of new or nonstandard materials/products, the problem of cost analysis gets slightly more complicated as the manufacturing experience may lack entirely from the process. To deal with these situations, a "learning curve" model is usually used. In this model, the "learning curve parameter" (LC) expressed as a percentage, represents the real estimate of production costs for a certain quantity.

TABLE 1. Risks associated with long-term contracts (Heinritz, Farrell, Giunipero & Kolchin 1992, 217)

Contract type	Increasing prices	Decreasing prices
Strong fixed-price contract	Low	High
Fixed price and renegotiation	Moderate	Moderate
Escalation via index	Moderate	Moderate
Price at time of shipment	High	Low

In calculations the amount from the production cost that should be reduced every time the quantity doubles can be approximated by 1-LC. As seen in figure 3, a general learning curve usually shows an initial rapid cost reduction which slowly evens out with standard manufacturing methods up to a rather small decrease rate maintained by the gain in proficiency.

Due to this high difference of costs in time for each new manufacturing process, in long term or high volume contracts is necessary to base the price decision on more realistic levels of production costs. A good solution that seems to be used in practice is to start with an 80% learning curve parameter, and reduce costs by 20% every time the volume gets doubled (Heinritz, Farrell, Giunipero & Kolchin 1992, 222; Cavinato & Kauffman 1999, 454).

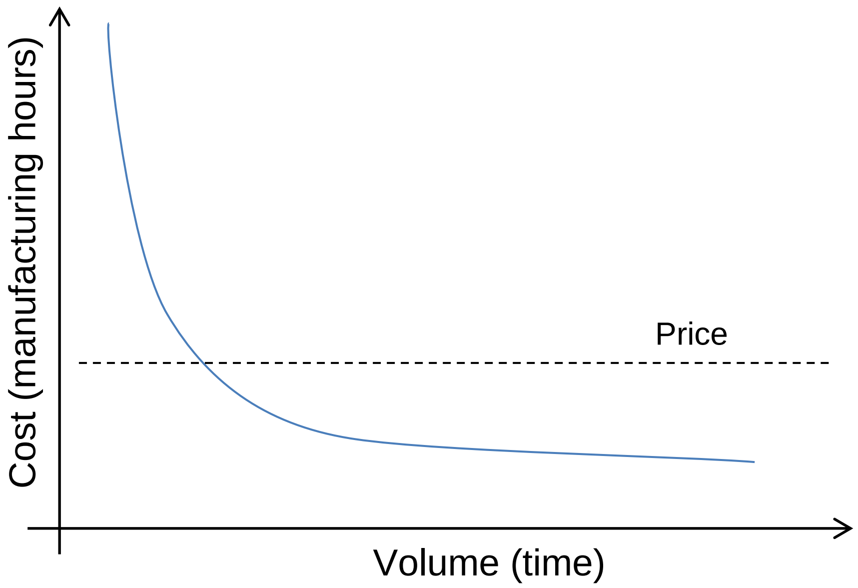

FIGURE 3. The Learning Curve Model (Waters 2003, 147; Heinritz, Farrell, Giunipero & Kolchin 1992, 221)

4 ORGANIZING PROCUREMENT

4.1 Purchasing Structures

The proper way to organize procurement depends of course on the size and the type of the business, with one major decision factor being the degree of centralization needed (Van Weele 2005, 227-250). While in smaller organizations, a single buyer could be in charge of all purchases, policies, and administration duties, medium-sized businesses usually employ an entire department of buyers, expeditors, storekeepers and clerks, in large enterprises even up to hundreds of people.

Some of the major benefits of uniting procurement under a single department, practice known as *centralized purchasing*, are:

- It consolidates all the orders for the same and similar materials, in order to get quantity discounts through greater leverage
- It reduces the costs of transport, stockholding and administration by coordinating associated activities
- It ensures quality and standards
- It develops specialized skills and improves procurement operations eliminating duplicated effort and random practices
- It provides suppliers with consistent information, handling, and service through a single point of contact
- It concentrates the responsibility of procurement, making management control easier and allowing others to concentrate on their own specific tasks

(Heinritz, Farrell, Giunipero & Kolchin 1992, 108; Cavinato & Kauffman 1999, 1055; Lysons & Farrington 2005, 168)

On the down side, besides being time and resource expensive several other disadvantages of centralized purchasing that may lead to consider alternatives are:

- Delays due to longer Requests for Proposal (RFP) and support cycles
- Inability to properly handle individual items
- Lack of expertise in purchasing particular type of materials
- Negative effect on employee moral by disapproving with individual decisions

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 106)

Naturally, for companies with wide geographical spread centralized purchasing might not always be the most effective solution. The reason is that regional departments are more likely to have better knowledge of local conditions and culture, improved relations with suppliers, more flexible operations and lower transport costs. As a result, they could perform better when using local purchasing under a considerable degree of autonomy, in a structure commonly known as *decentralized purchasing*. Additional reasons for using this type of organization could be:

- Unique requirements and major differences in operating conditions between business units
- To allow local authority on purchasing decision and give full responsibility for profits to the unit managers
- To provide more efficient and quicker services in meeting user's needs
- To improve public relations by using local distributors or sources

  (Heinritz, Farrell, Giunipero & Kolchin 1992, 106; Cavinato & Kauffman 1999, 208, 668, 1055)

This type of purchasing structure has the following advantages (Heinritz, Farrell, Giunipero & Kolchin 1992, 106-108; Cavinato & Kauffman 1999, 208, 668, 1055; Lysons & Farrington 2005, 169):

- Materials can be purchased by each department locally as needed
- Is more secure and fault tolerant, allowing to purchase in right quantity of right quality for each local department
- No heavy investment is initially required
- Orders can be placed quickly due to a shorter approval process
- It offers better support for the fast replacement of defective materials

On the other hand, through decentralized purchasing:

- An organization loses the benefit of bulk purchasing
- Specialized knowledge may be lacking in local purchasing staff
- Over and under-purchasing of materials can happen
- Fewer chances of effective control of materials exist
- management difficulties may appear due to a lack of proper collaboration and coordination among various departments

  (Lawrence 1983, 18-26)

Another possible structural arrangement is called *coordinated purchasing*. Within this approach in *lead division buying*, operating units with common interests in materials/items can voluntarily join efforts to form a group. A lead negotiator having the particular expertise or belonging to the unit with largest expenditures can be appointed to further represent the group in negotiations with suppliers (Heinritz, Farrell, Giunipero & Kolchin 1992, 110).

When geographic concentrations exist within a company, *regional buying groups* can be formed to purchase common materials in larger quantities or to assist individual units from the region that lack dedicated purchasing departments/personnel. When main key commodities are being purchased globally by many business units within a company, a joint purchasing and negotiation strategy, planned by a *worldwide buying committee* and formed from individual unit representatives, can be highly beneficial. In the same way, *corporate purchasing councils* can be formed nationally from purchasing managers at various company divisions to cover specific common commodities. Within these councils, each member can assume responsibility for purchasing companywide materials/items for which his or her division is the major user. Similar to councils but more advisory in nature *corporate steering committees* can meet periodically internally to discuss possible strategies regarding purchases on major commodities and externally with large suppliers to negotiate purchasing forthcoming volumes. In decentralized environments such occasions would also provide various unit personnel with the opportunity to meet and discuss further plans (Heinritz, Farrell, Giunipero & Kolchin 1992, 110-112).

In yet another alternative coordinated form called *structured decentralization*, the purchasing decision making is placed as close as possible to the actual act of buying. In this form, the division performance is being monitored by corporate staff giving however each buyer the ability to access all corporate information and additionally allowing local buyer options on pricing (Heinritz, Farrell, Giunipero & Kolchin 1992, 112).

According to Heinritz et al. (1992, 112) the common advantages of the previously mentioned coordinated forms of purchasing include: leverage for better pricing, large user prices for small use locations, reduced administrative costs at using locations and buying expertise developed by key individuals. Generally speaking, it simply enables to maintain decentralized decision making policies, preserving however many advantages of centralization.

Looking closer into the purchasing organization, the purchasing responsibility together with other related major management and operating functions is usually delegated to a specific department/person – process known as the *centralization of the purchasing function* (Heinritz, Farrell, Giunipero & Kolchin 1992, 114; Cavinato & Kauffman 1999, 668). The advantages of this system allocation are also present in the economic principle of the division of labor and in all functional organizations:

1. better control is achieved being easier to monitor, standardize and record
2. specialized knowledge, skills and procedures are developed
3. may result in better performance in other departments (i.e. relieved of the purchasing burden and associated interruptions)
4. clearer target per department that could possibly result in greater individual contributions to overall profitable operation

Generally speaking the procurement process is very complex and typically includes activities such as identifying and evaluating suppliers, reviewing and selecting specific materials, specifying requirements and sending requests for quotations, placing orders, legal paperwork, inspections, confirmations, follow-ups, and transportation arrangements (see figure 4). Additionally, procurement also requires solving all the issues that may appear after ordering the materials such as late deliveries, incorrect quantities, and incorrect or defective items.

In organizing procurement it is therefore very important to pay attention and properly monitor each and every step of the process from the first definition of needs to the successful delivery and payment of materials in order to maintain and improve quality and reduce costs. From this perspective in addition to general operating procedures, functioning in a procurement department demands a number of detailed duties. Typically, a minimal list of such tasks includes:

- **Maintaining basic information**: purchase records, price records, stock and consumption records, supplier records, specification files, catalog files
- **Research**: market studies, material studies, price/cost analysis, value analysis, investigating supply sources, inspecting supplier’s plants, developing supply sources, developing alternative materials and sources

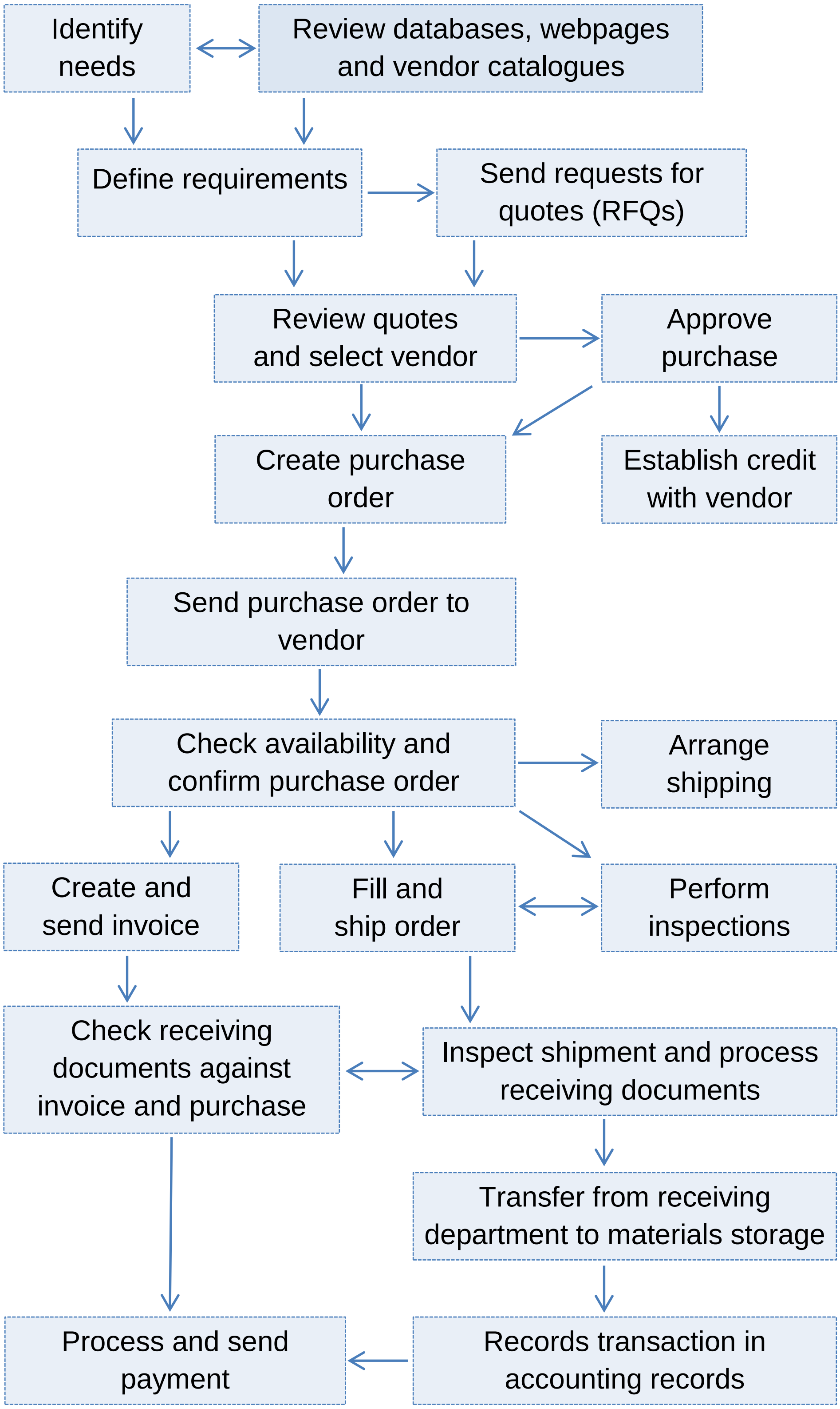

FIGURE 4. General steps of a typical business purchase process (Van Weele 2004, 28,117)

- **Procurement**: interviewing salespersons, checking requisitions, securing quotations, analyzing quotations, choosing between contract and open-market purchase, scheduling purchases and deliveries, negotiating and writing contracts, issuing purchase orders, checking legal conditions of contracts, following up on deliveries, checking receipt of materials, verifying invoices, corresponding with suppliers, making adjustments with suppliers
- **Materials management**: maintaining minimum stocks, maintaining inventory balance, improving inventory turnover, transferring materials, consolidating requirements, avoiding excess stock and obsolescence, standardizing packages and containers, making periodic reports of commitments, disposing of expired and surplus materials

(Heinritz, Farrell, Giunipero & Kolchin 1992, 115-116)

When purchasing large amounts of materials or items it is essential to identify which ones will have most impact on the overall inventory cost and which categories need special management and controls as through efficient use of inventory resources it could influence overall costs (Vollmann 1997, 720-722). To resolve this problem, an *ABC analysis (Selective Inventory Control)* can be used.

In an ABC analysis the inventory is grouped into three categories: "A" – important and approximately 10% of items or 66.6% of value, "B" – moderate almost 20% of items or 23.3% of value and "C" – marginal largely 70% of items or 10.1% of value (Wild 2004, 102). As graphically presented in figure 5, alternative percentage levels exist for the ABC selection groups. Typically the ABC analysis groups prioritizing inventory control on A and B may be characterized by:

- A – close control, frequent check of schedule revisions, little or no safety stock, and high turnover targets (12-24 times/year)
- B – moderate control, check on demand changes, moderate safety stock, and high turnover targets (6-15 times/year)

- C – looser control, visual check or two-bin system, large safety stock, and low turnover targets (1-5 times/year)

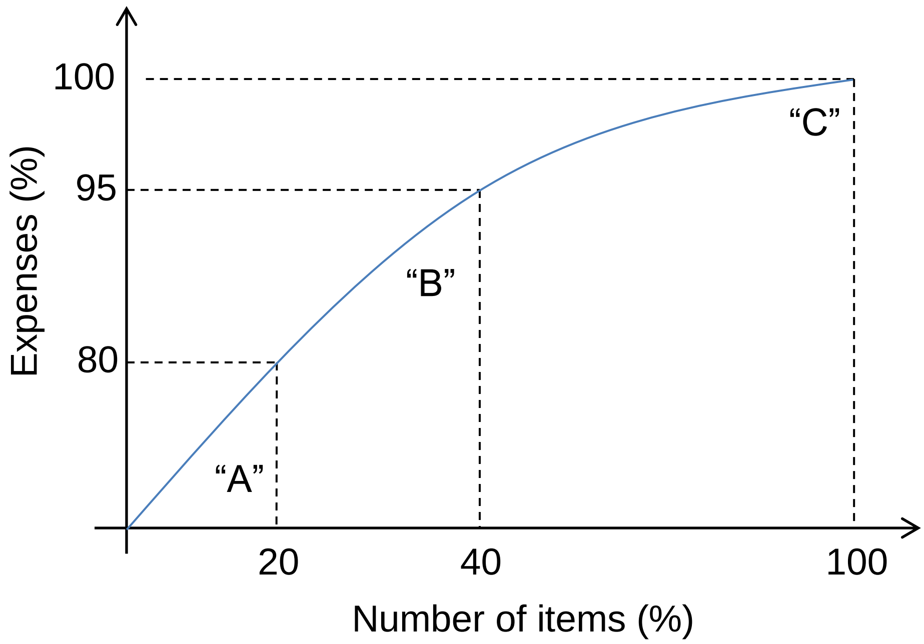

FIGURE 5. ABC analysis groups (Heinritz, Farrell, Giunipero & Kolchin 1992, 288)

Obviously, one of the most important matters to be addressed is "how much should be purchased?". To answer this question, many attempts have been made to create a practical formula that besides basic considerations would also take into account many other influencing factors. Some of these are: item unit cost in various lot sizes, average inventory resulting from purchases in different quantities, number of orders issued, negotiation and issuing of purchasing orders costs, and inventory related transportation costs. One widely accepted effective solution is the *Economic Order Quantity* (EOQ) describing the balance point between acquisition (purchase order) costs and holding costs. As figure 6 shows, holding costs increase with the quantity of items purchased. At the same time, the order costs are lower with larger orders as fewer orders need to be placed.

The EOQ balance point represents the place where the sum of the holding and purchase order costs is minimized (Waters 2003, 260; Hugos 2006, 60):

$$EOQ = \sqrt{\frac{2 \times annual\ usage \times order\ cost}{annual\ holding\ cost\ per\ unit}}$$

- annual usage – the predicted annual usage amount in units
- order cost – the sum of the fixed costs that occur every time an item is ordered, not associated with the quantity ordered but only with the actual physical act required to process the order
- holding cost – the financial costs of carrying and storing inventory mostly made up of the costs associated with physically storing the inventory and the financial investment for the inventory

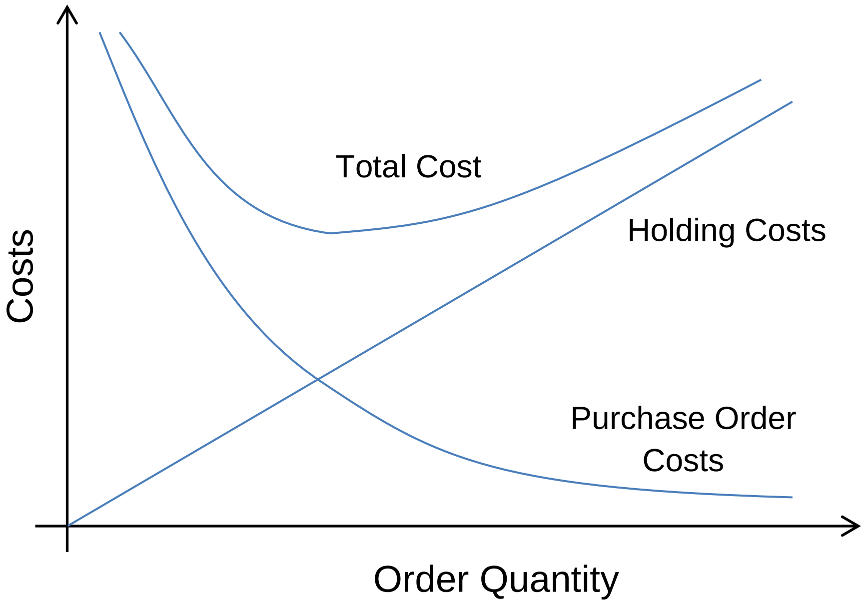

FIGURE 6. Economic Order Quantity (Waters 2003, 260)

When using EOQ one also needs to be aware of its drawbacks and limitations. Though largely serving its purpose, the EOQ assumption of constant usage and instant or immediate replenishment of inventories is not always practical. A safety stock is usually required in practice as deliveries from suppliers could be unavoidably delayed or there may be an unexpected demand for stocks. EOQ also assumes that the demand is constant and clearly known, often untrue as it may fluctuate with various factors up to a certain level of uncertainty. Moreover, the assumption of unlimited storage space and delivery quantities and discounts, together with possible changes in cost structures (e.g. reduced by e-commerce) are also overlooked. As a result computational errors may appear and could materialize as slightly incorrect number of orders to be placed especially when fractions or decimals are involved (Waters 2003, 260; Hugos 2006, 60).

If an organization is to be profitable, it should be operating according to some plan. This is also the case with purchasing. Naturally according to the business size and resources available the decided plan might have various levels of complexity and coverage. Focusing on objectives, any purchasing plan starts however by fundamental actions such as collecting and organizing the significant data in a logical sequence for review and reference. A basic presentation of a purchase plan for a rather simple commodity should contain at least the following information:

1. Item description and specification
2. Past and future demand prognosis
3. Market size
4. Major producers and suppliers
5. Distribution of current suppliers (percentage & numeral splits)
6. Supplier strengths (price, quality, service)
7. Supplier weaknesses
8. Contract types, lengths, methods
9. Short-term (one year) and long-term (five years) plans
10. Quality improvements and cost reductions resulting from the plan

    (Bowersox, Closs & Cooper 2002, 143)

In relation to forecasting, which is more of an educated assessment of the most probable course of events or a range of probabilities, than a highly organized activity, planning aims to establish what should be done in response.

4.2 Supplier Management

The basic objective of purchasing is to find qualified suppliers capable and willing to provide consistently at competitive prices, service and quality levels. In selecting the best sources multiple options are often considered and new ones are being developed into a list of accepted suppliers.

Though in some cases particular factors such as the supplier's location or ability to deal with a variable demand may be important, generally speaking besides being able to provide, qualified suppliers fulfill the following descriptors:

- Are financially secure with good long-term prospects
- Have the ability and capacity to supply the necessary materials
- Accurately deliver the requested materials
- Send materials of guaranteed high quality
- Deliver reliably, on time with short lead times
- Quote acceptable prices and financing arrangements
- Are flexible to customers' needs and changes
- Are experienced and have expertise in their products
- Have earned a good reputation
- Use convenient and easy procurement systems
- Have been used successfully in the past and can develop long-term relationships

(Waters 2003, 232-236; Barrat & Whitehead 2004, 83-104)

It is obvious that selecting good suppliers is a very important issue for every company as bad partners could easily lead to the impossibility of performing its own business adequately. As this selection process is a very time consuming one it is usually employed only in the cases of major suppliers, and it follows an iterative approach similar to:

1. Look for alternative suppliers
2. Build a long list of qualified suppliers who can deliver the products
3. Compare organizations on this long list and eliminate those who are, for any reason, less desirable
4. Continue eliminating organizations until you have a shortlist (usually four or five) of the most promising suppliers
5. Prepare an inquiry, or request for quotation, and send it to the shortlist
6. Receive bids from the shortlist
7. Do a preliminary evaluation of bids and eliminate ones with major issues
8. Do a technical evaluation to see if the products meet all specifications
9. Do a commercial evaluation to compare the costs and other conditions
10. Arrange a pre-award meeting to discuss bids with the remaining suppliers
11. Discuss condition bids, which are specific conditions that have to be agreed
12. Choose the supplier that is most likely to win the order
13. Arrange a pre-commitment meeting to sort out any last minute details
14. Award orders to the preferred supplier

(Cavinato & Kauffman 1999, 97, 182, 264, 826, 995; Heinritz, Farrell, Giunipero & Kolchin 1992, 150-160)

In a more simplified schematic form the supplier selection process can be described in four major stages: the survey stage, the inquiry stage, the negotiation and selection stage, and the experience stage as shown in figure 7.

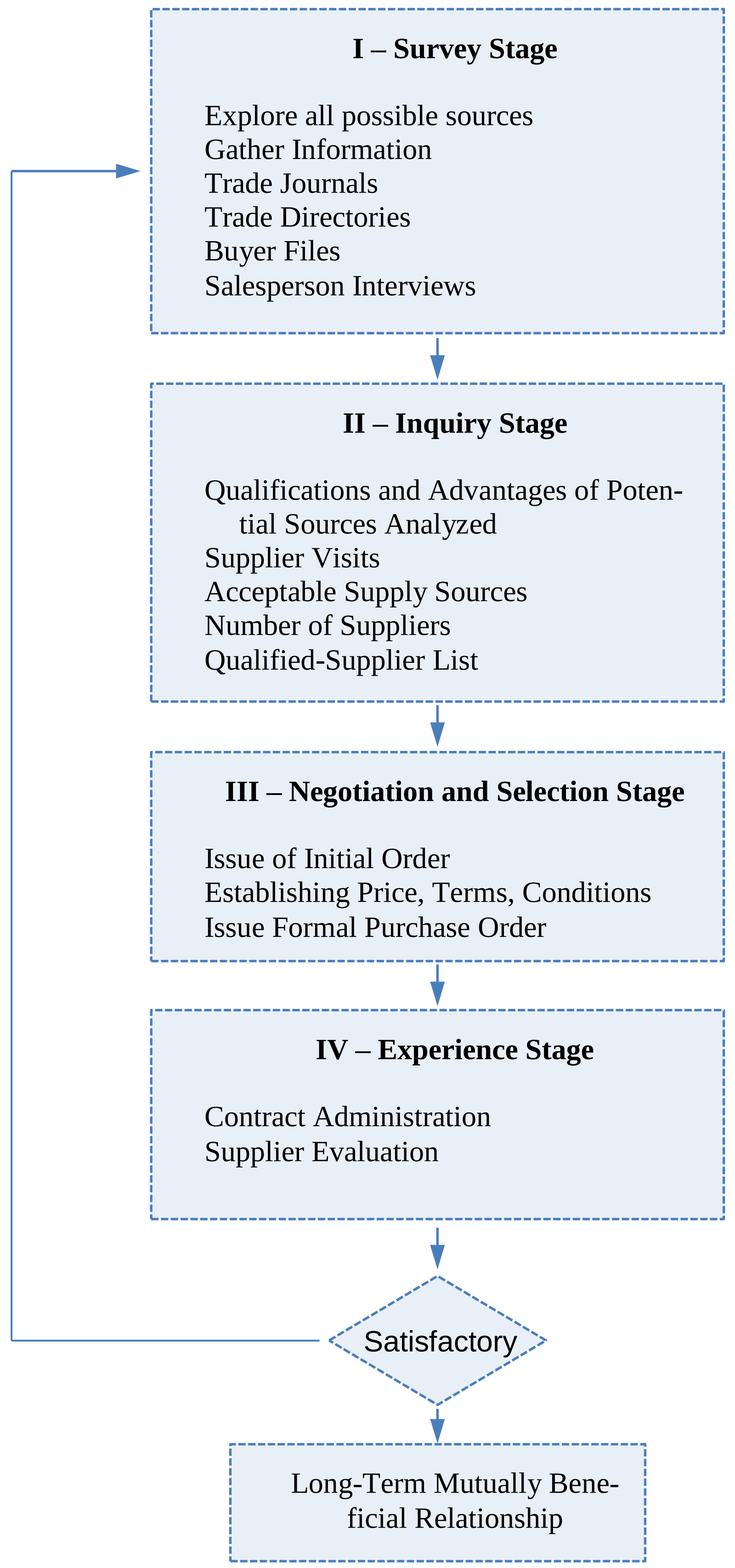

FIGURE 7. The-Four Stage Model of Supplier Selection (Heinritz, Farrell, Giunipero & Kolchin 1992, 151)

When looking for various sources of supply, several basic aspects need to be taken into consideration:

- Manufacturer vs. distributor – depends on the services required from the supplier (i.e. product distribution included or not) and own warehousing possibilities
- Local vs. national suppliers – national may offer higher service levels while local might complement by responsiveness and flexibility
- Small vs. large vendors – usually correlated with the order size to avoid dependability
- Domestic vs. foreign – the latter is more complex and multi-dependent on various factors as previously discussed
- Open tender vs. limited tender – encourage open competition or reduce administrative effort by imposing certain requirements on suppliers (e.g. experience, size, financial status)

  (Quayle 2006, 38-41; Heinritz, Farrell, Giunipero & Kolchin 1992, 153-155)

One very interesting and highly debated angle of this topic is the number of suppliers to be used. It has been so far emphasized that long-term relationships are desired as they build trust and confidence. This thinking also orients unavoidably toward single-suppliers raising vulnerabilities and dependence on the performance of the single supplier. To avoid this, the same product is often purchased from several suppliers simultaneously according to various preferences or rules, e.g. at least two suppliers per material as traditionally accustomed or more than two requiring that a manufacturer should never account for more than 20% of the total revenue and a customer for more than 50% of the total resources. An adequate strategy decided by the careful consideration of the advantages and disadvantages of single versus multiple sources as presented in table 2 is though a more adequate approach in taking such a complex long-term business decision or even only temporary for a shorter period of time (Waters 2003, 235; Heinritz, Farrell, Giunipero & Kolchin 1992, 156).

TABLE 2. Single vs. Multiple Sources (Heinritz, Farrell, Giunipero & Kolchin 1992, 157; Cavinato & Kauffman 1999, 35, 97, 215, 318, 510, 823)

Single Source	Multiple Sources
Stronger and easier to manage relationship often formalized into a partnership	Lower prices as a result of competition between suppliers
Both parties’ commitment to the success of the relationship	Less flow related risks as suppliers can be switched
Volume and price discounts with large orders leading to leverage over supplier	Encourages improvement and innovation by competition
Ease of communication, reduced administration and procedural simplicity for regular orders	Wider access to information and knowledge due a to larger number of entities involved in the process
Consistency in materials quality and their supply, possible flexibility towards fulfilling special requirements	Deals easier with variable demands and offers the ability to call on unused capacity of several suppliers
Confidentiality, easier to train, develop, and monitor supplier and performance, and to coordinate delivery schedules	Does not require to rely and trust a single external entity and guards against price increase

Of course the power may lie sometimes with the suppliers giving them the possibility to effectively choose their customers. This is the case with suppliers that have monopoly or near monopoly over a particular product or for example in situations of temporary supply shortage of a certain commodity when the supplier might prefer larger customers, customers that are willing to pay more, or older business partners with long-term agreements.

As a safer alternative, forward-buying can be decided depending of course on the storage capabilities, meaning that excessive material can be pre-purchased and stocked. This action would ensure the price and supply for the near-future but at certain risks, (e.g. dropping prices or extremely reduced demand) but would also increase the overall pricing due to warehousing and related costs (e.g. warehouse management).

In some cases proper sources of supply may simply miss from the market, leading to the necessity of creating/developing a custom supplier that meets the requirements, process known as *reverse marketing* (Leenders & Blenkhorn 1988, 2). Besides creating basic availability, there are many other reasons for reverse marketing:

- High payoff – improved quality, price, delivery, profits, etc.
- Market deficiency – supplier not aware of all buyers, can occupy full production capability
- Future considerations – envisioning long-range needs and plans, builds long-term relationships
- Social, political, geographical, environmental concerns – nearby locations, other sources may be too distant or unwilling/uninterested/fully occupied
- Technology – support for supplier, assistance with new-product designs unfamiliar materials, solves issues related to specific requirements or conditions of application and use
- Pro-activeness, recognition and appreciation – demonstrate procurement’s productive contribution to profits
- Compatible with Just-In-Time (JIT) production strategy and quality concerns
- Dual supply perspective – operational (trouble avoidance) and strategic (opportunity contribution maximization)

(Biemans & Brand 1995, 28-37; Blenkhorn & Banting 1991, 185–191; Heinritz, Farrell, Giunipero & Kolchin 1992, 171; Cole 1988, 299-303; Gelinas, Jacob & Drolet 1996, 39-40; Waters-Fuller 1995, 220-221)

In exchange to the above mentioned benefits, some of the motivations often offered to the supplier are:

- Steady flow of guaranteed orders over a period of time, at a reasonable price level
- Technical assistance in properly setting up the product for qualitative production
- Assistance in procuring raw materials up to the point of providing them for fabrication by the supplier to cover initial risks of waste and damage
- Initial costs of new equipment and tools until absorbed by volume production

As figure 8 shows, being directly involved in the manufacturing process from the very beginning, great cost savings are achievable for purchasing, especially when concentrating on the preproduction phase. In some cases, this kind of action might be also possible with existing suppliers.

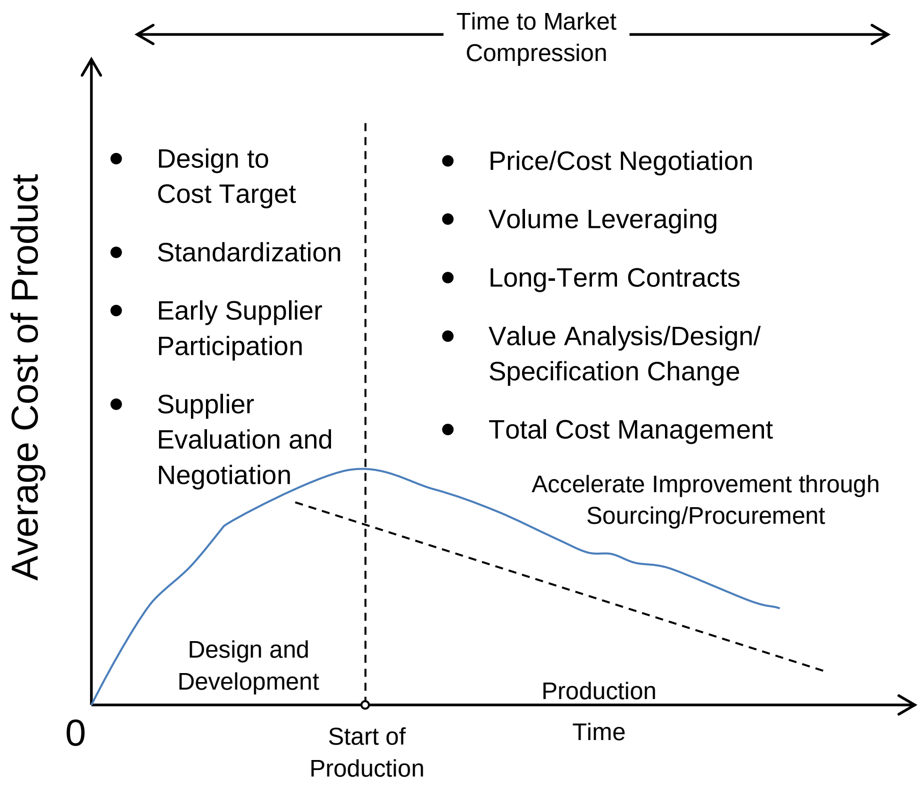

FIGURE 8. To get top cost breakthroughs purchasing needs to concentrate on pre-production (Morgan 1990, 93).

Once good relations have been established, long-term supplier partnerships require more attention than usual suppliers as both parties need to get deeper involved with each other up to upper management levels, in order to keep up with the changing markets and technologies and improve. This implies that the buyer also becomes involved with cost and value analyses of the supplier's operations. To ensure fair prices and to compensate for competitive bidding constant contact is maintained.

The matters presented in this chapter could be seen and judged differently by individual managers at various levels. For a general understanding, the overall differences between more analytical approaches and more traditional methods can be clearly seen from Table 3 and used as reference.

TABLE 3: Key Differences between World-Class and Traditional Purchasing (Giunipero 1986, 1-2)

CATEGORY	TRADITIONAL BUYING	WORLD-CLASS BUYING
Suppliers	Opponents	Partners
Suppliers	Many: “more is better”	Few: “single source”
Supplier location	Scattered widely	As close as possible
Supplier relations	Short or long-term	Long-term
Contract period	Short	Long
Quantity delivered	Large	Small
Transportation	Full load, single item	Full load, multiple items
Deliveries	Monthly	Weekly/daily
Quality	Inspect and re-inspect	No incoming inspections
Communications	Purchase order	Electronic/verbal release
Communications	Sporadic	Continuous
Inventory	Advantage/asset	Disadvantage/reduce
Design	Make print/get quote	Early supplier input/ make print after
Production	Large lots	Small lots
Storeroom	Large/automated	Small/flexible
Price	Competitive bidding	Cost-based negotiation
Cost improvement	Sporadic	Continuous-driving-material cost down
Seller approach	Selling	Improving product for both parties

4.3 Transportation and related services

Yet another important aspect of procurement and supply chain concerns transportation and related services. By reducing delivery costs, improving carrier services, lowering inventory carrying costs, and helping to implement Just-in-Time (JIT) systems, purchasing can achieve substantial contribution to profits. Through more careful consideration transportation can:

- Reduce inventories by reducing lead times and variability, improve production planning on tight schedules, reduce the requirement for protective inventory, reduce forecasting errors
- Reduce transportation costs by optimizing transportation services to meet the organization's targets, limiting its carrier base and obtaining better pricing and services from carriers
- Bring into consideration cost trade-offs and the total cost concept, such as speed of delivery, accessibility, reliability, damage, inventory carrying costs, lot sizes, and theft
- Help implement Just-in-Time (JIT), quick response (QR), and efficient consumer response (ECR)

(Cavinato & Kauffman 1999, 968-992)

A systematic and analytical approach to getting the most out of transportation could follow the next stages:

1. Carefully analyze the transportation requirements
2. Determine the desired modes of transportation (air, motor, rail, water, pipeline, intermodal i.e. two or more modes, or small-package services)
3. Wisely choose the carrier types paying close attention to the weight and volume of shipment and packaging (e.g. less-than-truckload or container load LTL/LCL vs. full truckload or container load FTL/FCL)
4. Take into consideration delivery requirements (e.g. in terms of time and delivery points) accounting as well for international matters
5. Establish routes listing on the purchase order and routing letters at least: the handling characteristics, the distance to be moved, and the weight of the freight
6. Analyze pricing options, breaking pricing into hauling charges and terminal charges bounded by the cost and value of the service
7. Negotiate with the carrier representatives
8. Establish ground rules (e.g. penalties and liabilities)

9. Write contracts mentioning all possible aspects (routing, mode, and method of transportation, disclosure of goods, responsibility for goods, responsibility for specification, termination, volume requirements, scope of transportation, operational standards, billing and payment, title of goods, force majeure, conflict with government regulations, applicable law, assignability, method of changing the contract, notice, effect of failure to comply with the contract, method of resolving disputes, confidentiality, notice regarding carrier insurance)
10. Manage express or small-package shipments accordingly and individually (e.g. next-day deliveries) and consider additional methods for cost reduction (carrier service area coverage, shipment consolidation/drop shipping, corporate contracts and express carriers)
11. Deal with tracing and expediting, performance evaluation, payment and auditing freight invoices, claims, analysis and processing
12. Consider outsourcing transportation activities or consultants when lacking internal resources
13. Consider other special services that might relate to the transportation services

(Cavinato & Kauffman 1999, 968-992)

5 INTERNATIONAL PROCUREMENT

5.1 Benefits and concerns

When purchasing internationally various factors may have a serious influence upon the overall process and its outcome, be it directly (e.g. the materials being purchased) or indirectly (e.g. government actions). As new markets are constantly being created it is necessary to study and observe the changes in supply and demand in order to identify the availability of materials or products that can be purchased abroad (Winser & Tan 2000, 6).

In general lines some of the benefits of international procurement are:

- Lower prices/costs – derived from currency valuation and the effects of product specialization, lower labor, prime-material, and overhead costs
- Availability/continuity – with a rising worldwide demand in goods supply, new sources need to be actively and continuously sought; sometimes, though coming from a much further distance, delivery times may be shorter for example due to a larger production capacity
- Technological specialization – the quality or the technology know-how of various products purchased from abroad may be often higher than the domestic one, or by focused specialization the price offered may be lower
- Increased customer base – with more goods and services being purchased from other countries, those countries' economies will expand and create consequently higher needs encouraging spending and growth
- Greater competition/stimulation of global economy – with new sources and productive capacities naturally comes a continuing increase in competition, and with an increase in global demand the global market gets stimulated
- Market entry – when a market offers competitive advantages, it makes good economic and political sense to purchase in that market and make the company's presence felt locally, accepting with it some responsibility

for the economic development of the country in which the market is located

(Heinritz, Farrell, Giunipero & Kolchin 1992, 187)

Though extremely stimulant, challenging and theoretically unlimited in possibilities, purchasing in a foreign market is a complex, delicate and sometimes frustrating process. It is therefore important to be extremely aware of the main factors that could influence negatively on the overall process and prepare in advance. Some of the biggest concerns with suggested actions are:

- Governmental economic policy and political issues or changes in a country involved directly or indirectly in the process, laws and complications with administrative procedures needed for imported goods to pass smoothly through customs – analysis on country's history, political situation and current trends, embargoes, and geographical positioning
- Cultural and language/communication differences, nationalism – acquaintance and understanding of the country's practices, customs and values, familiarity to different standards and languages used, and patience as the process may be much slower than usual
- Currency fluctuations – monitoring the international and local currency rates and employing a good exchange rate management strategy:
    - Passive: fixed prices and payment in euros
    - Active: paying in foreign currency or euros and consulting with financial specialists/following the currency fluctuation band/sharing the risks of fluctuation/using forward future markets and rates
- Distance and time factors leading to difficulties in obtaining spares and replacements quickly, visiting suppliers or unmatched working hours
- Longer lead times and additional inventory

(Bowersox, Closs & Cooper 2002, 180; Cavinato & Kauffman 1999, 398)

When doing a price analysis for international purchasing, besides the quoted price additional costs may add up considerably and include: transportation, customs duty and services, insurances, special packaging, artwork, and treatment, additional inventory costs, handling and administrative fees (e.g. inspections, documents, loading, terminal), and financial fees (e.g. letters of credit and bank costs). In estimating the total costs, the sum of all these factors should be carefully taken into consideration before any order is sent, as the economic advantages initially visible in a smaller price may disappear completely.

5.2 International commercial terms

As different countries may use different trade terms to define obligations between the buyer and the seller with respect to delivery, payment, and risk of loss, it is important to designate the specific laws under which the term is to be interpreted. While the terms' different interpretation is likely to lead to unexpected complications, their clear understanding could eliminate costly uncertainties. A complete list of such terms and their definitions widely used in international commercial transactions is published by the International Chamber of Commerce (ICC). Although these terms are accepted by governments, legal authorities and specialists, they only concern the rights and obligations of the trading partners regarding the goods delivered. They are used to divide transaction costs and responsibilities between buyer and seller and reflect transportation practices. As of January 1, 2011 the eighth edition of the International Commercial Terms (Incoterms) is in effect.

A basic list of the most frequently used Incoterms and their definition includes the following:

- **FOB** (*Free on Board*) + {named port of origin} – The delivery of goods on board the vessel at the named port of origin (loading), at seller's expense. Buyer is responsible for the main carriage/freight, cargo insurance and other costs and risks.

- **CFR/C&F** (*Cost and Freight*) + {named port of destination} – The delivery of goods to the named port of destination (discharge) at the seller's expense. Buyer is responsible for the cargo insurance and other costs and risks.
- **CIF** (*Cost, Insurance and Freight*) + {named port of destination} – The cargo insurance and delivery of goods to the named port of destination (discharge) at the seller's expense. Buyer is responsible for the import customs clearance and other costs and risks.
- **EXW** (*Ex Works*) + {named place} – From factory, mill or warehouse, representing the seller's premises. EXW applies to goods available only at the seller's premises. Buyer is responsible for loading the goods on truck or container at the seller's premises, and for the subsequent costs and risks. In practice, it is not uncommon that the seller loads the goods on truck or container at the seller's premises without charging loading fee.
- **FCA** (*Free Carrier*) + {named point of departure} – The delivery of goods on truck, rail car or container at the specified point (depot) of departure, which is usually the seller's premises, or a named railroad station or a named cargo terminal or into the custody of the carrier, at seller's expense. The point (depot) at origin may or may not be a customs clearance center. Buyer is responsible for the main carriage/freight, cargo insurance and other costs and risks.
- **DDU** (*Delivered Duty Unpaid*) + {named point of destination} – The delivery of goods and the cargo insurance to the final point at destination, which is often the project site or buyer's premises, at seller's expense. Buyer assumes the import customs clearance and payment of customs duties and taxes. The seller may opt not to insure the goods at his/her own risks.

(Incoterms 2000, 1; Incoterms 2011, 1)

6 ETHICS AND LEGAL ASPECTS

The ethical practices of a business generally refer to a company's own set of values and moral principles of conduct that guide its behavior. Operating within these standards, the purchasing department also develops a written or often unwritten ethical code of its own that is largely subjected to personal judgment and carried through personal contacts and relationships. Despite this interpretational variability, a fundamental code of conduct such as the revised "Principles and Standards of Ethical Supply Management Conduct" of the Institute of Supply Management (ISM) adopted in May 2008, should be at least followed. Acting on principles like "Integrity in Your Decisions and Actions", "Value for Your Employer", and "Loyalty to Your Profession", ISM dictates the following standards of conduct:

Perceived Impropriety – Prevent the intent and appearance of unethical or compromising conduct in relationships, actions and communications

Conflicts of Interest – Ensure that any personal, business or other activity does not conflict with the lawful interests of your employer

Issues of Influence – Avoid behaviors or actions that may negatively influence, or appear to influence, supply management decisions

Responsibilities to Your Employer – Uphold fiduciary and other responsibilities using reasonable care and granted authority to deliver value to your employer

Supplier and Customer Relationships – Promote positive supplier and customer relationships

Sustainability and Social Responsibility – Champion social responsibility and sustainability practices in supply management

Confidential and Proprietary Information – Protect confidential and proprietary information

Reciprocity – Avoid improper reciprocal agreements

Applicable Laws, Regulations and Trade Agreements – Know and obey the letter and spirit of laws, regulations and trade agreements applicable to supply management

Professional Competence – Develop skills, expand knowledge and conduct business that demonstrates competence and promotes the supply management profession

(ISP 2008, ii)

Moreover, the complete directions provided by the UK's Chartered Institute of Purchasing and Supply (CIPS 2007, 2-9) cover in detail all aspects of ethics. As the purchasing department is extremely visible and therefore highly important for the perception of the business externally, it is vital to control and impose its ethical behavior. In practice, this seems to be best achievable through the development and enforcement of relevant ethics policy, and the continuous training and education of the personnel (Dobler & Burt 1996, 52-59). Because the issues of business ethics are not limited to the internal bodies, confidence in a supplier is essential but should not be blind. It must rather be earned, evaluated, and sought, as a decision or even a restrictive factor in supplier selection. Looking at the current trend of increased sourcing from external partners, ethics become now an even more considerable concern. On the other hand, seeing the relationship between a business and its suppliers as controversial may create ethical dilemmas in the purchasing function (Haynes & Helms 1991; Wood 1995, 7-8).

In addition to ethics, an even more important aspect of procurement is represented by the legal base on which decisions and agreements are founded. Providing the power to act and make purchases on behalf of a company, these legal principles, statutes, and rules enable the everyday purchasing activities. Also, for every purchase transaction and contract with suppliers, they determine whether or not an agreement is enforceable in court and the possible resolutions in case of a breach.

Although ultimately best left to specialists trained in legal matters, every professional purchaser needs an understanding of basic legal concepts and relevant statutes. Because the purchasing activity involves many legal areas at various levels and with different degrees of complexity, a detailed discussion is out of scope here but a good starting point into a better understanding of the topic would be a simple overview of the sources of law governing procurement: *the common law* and *the statutory law*.

The common law is denoted by the bulk of legal principles based on historical customs, reason, and justice that developed over time as courts made decisions on a case by case basis (Cavinato & Kauffman 1999, 665-666). It is the first resource to be considered in case of a dispute as a judicial decision for an established precedent might already exist, needing merely an adaptation to the changing conditions and public needs.

In time the principles of common law have been translated into the statutory law, a collection of written rules of legislated laws that may either validate or override the rules of common law or address issues overseen or not considered by it. While statutory laws cannot be changed, they can be interpreted when their application to the facts of a particular case is unclear (Cavinato & Kauffman 1999, 665-666).

All these resources: common law, case law, statutes at all levels of government, court interpretations of statutes, and international treaties, stand together to create a legal system. This system dictates whether contracts are enforceable or not, sets out the enforcing mechanisms, and dictates what purchasers can and must do when contracting with suppliers (Cavinato & Kauffman 1999, 665-666).

Originating in the common law, the agency law and the contract law provide the framework for commercial transactions in the context of market economy, based on principles of free and open competition. The agency law establishes the power and authority by which a buyer acts on behalf of the employer as well as his or her duties and ethical responsibilities. Practically it simply states that when one person acts as an authorized agent of another, the acts of the agent become those of the person for whom the agent is acting. As all corporations are invisible, intangible, and exist only legally they must act through their agents, i.e. their sales persons and purchasers. It needs to be understood however that if these agents act beyond the scope of their authority, they may be personally liable for any commitments made (Cavinato & Kauffman 1999, 667-670).

As every purchase is a contract between the buyer and the supplier, most of the daily purchasing activities involve the law of contracts. For international contracts, the laws of the different countries involved in business are to be obeyed and followed. As each country has its own contract laws, in order to facilitate and govern commercial trades many countries have joined together by treaty to create a common body of contract principles, the United Nations Convention on the International Sale of Goods (CISG). As a result it is now commonly understood that a contract is a promise or set of promises that creates obligations that may be enforced in a court of law. For it to be valid and enforceable, it should at least contain an agreement, be made by competent parties, concern legal subject matters, and be supported by mutual consideration. Regarding contracts, further notions that should be deeper analyzed could include:

- The duties of the agent, and purchasing ethics
- Key term definitions: agreements, competent parties, legal subject matter, warrant, quantity, gap fillers, price, payment etc.
- The contract formation process: offer, termination of offer (i.e. lapse, rejection, revocation), acceptance of offer
- Oral contracts and writing requirements
- Contract modifications, terms and conditions
- Express and implied warranties, warranties disclaimer
- Contract performance in terms of delivery of goods, acceptance of the goods, payment matters, failures of performance, rejection of the goods, revocation of acceptance
- Dispute and alternative dispute resolution, statute of limitations, remedies
- Purchaser regulations: antitrust, labor/employment, and environmental laws

(Longdin 2009, 37-42; Cavinato & Kauffman 1999, 665-700)

7 CASE-STUDY: PET PRODUCTS

7.1 Importance

Unlike wild creatures usually kept in cages or preferably found free in nature, or livestock, working, and sport animals, a *pet* is an animal often kept for the companionship and to the benefit and personal amusement of its owner. Examples of common house pets include dogs, cats, rabbits, small animals such as ferrets, hamsters, gerbils, and guinea pigs, fish and turtles, and parakeets. Some prefer to keep even more exotic species as pets like snakes, lizards, spiders and hedgehogs. In many cases these precious companions are and mean however much more than pets. Pet therapy for instance, involving usually dogs, cats, rabbits or birds, is a rather long-standing technique meant to help in reaching out to the elderly, the infirm or to ill and abused children (Arkow 1983, 7). As commonly known pets can positively influence on a person's mood and quite often make loneliness pass unobserved (FEDIAF 2011, 1). These facts have been also proved through research indicating that pet owners have fewer allergies, less likelihood of depression, better heart health, less Alzheimer's symptoms, and often get more exercise (Arkow 1983, 33; Davis 2009, 1; Hodai 2007, 1; Mundell 2008, 1).

In response to the pet's growing importance and involvement in the owner's life and health condition, the pet industry has globally grown intensely and diversified rapidly in multiple directions. If before specific pet products were mainly to be found in specialized pet stores for instance, now many of them can be easily accessed from most supermarkets on own dedicated aisles. In addition to an enlarged assortment of products as exemplified in Figure 9, a wide range of services targeting pets and pet owners have been born and continue to grow. Examples of such services include pet health care, pet training and handling, pet sitters and walkers, pet rescue and adoption, pet boarding and daycare, pet waste removal, pet cremation and even pet blogs and clubs (PBD 2011, 1).

Fit-Fur-Life treadmill for dogs
(PETNETSTORE 2011, 1)

“Yuma” bed for pets
(TRIXIE 2011, 1)

“Palermo” winter coat for dogs
(TRIXIE 2011, 1)

Brit Care complete food for dogs
(VAFO 2011, 1)

“Chameleon” latex toy for dogs
(TRIXIE 2011, 1)

“Vico” hooded litter tray for cats
(TRIXIE 2011, 1)

“Solitaire” activity game for dogs
(TRIXIE 2011, 1)

Treats for rabbits
(TRIXIE 2011, 1)

“Munera” scratching post for cats
(TRIXIE 2011, 1)

Brit Care Tuna & Salmon for cats
(VAFO 2011, 1)

Knotted Chewing Bone
(TRIXIE 2011, 1)

Nail clippers
(TRIXIE 2011, 1)

Exercise wheel for rodents
(TRIXIE 2011, 1)

Harness for rats
(TRIXIE 2011, 1)

FIGURE 9. Examples of pet products

7.2 Product segmentation

As it can be seen from Table 4, in 2011 62% (115,5 million) of the U.S. households have a pet as compared to 56% in 2008, while in Europe similar statistics indicate now up to 62 million households (FEDIAF 2011, 1). This means a rising total of 177,5 million possible household customers. Regarding the number of pets, in 2011 US accounts for 377,4 million pets (see Table 4) while Europe for about 200 million pets, distributed as shown in Table 5. Considering together the US and European markets the total number of pets or indirect customers rises to 577.4 million distributed as shown in Figure 10.

TABLE 4: Breakdown of pet ownership in the U.S. according to the 2011-2012 APPA National Pet Owners Survey (APPA 2011, 1)

	Number of U.S. Households that Own a Pet (millions)	Total Number of Pets Owned in the U.S. (millions)
Dog	46,3	78,2
Cat	38,9	86,4
Fish	12,6	159,7
Bird	5,7	16,2
Small Animal	5,0	16,0
Reptile	4,6	13,0
Equine	2,4	7,9
Total	**115,5**	**377,4**

TABLE 5: Facts and figures from the European Pet Food Industry Federation (FEDIAF 2011, 1)

	Total Number of Pets Owned in Europe (millions)
Dog	56,0
Cat	60,0
Fish	9,0
Bird	35,0
Others	40,0
Total	**200,0**

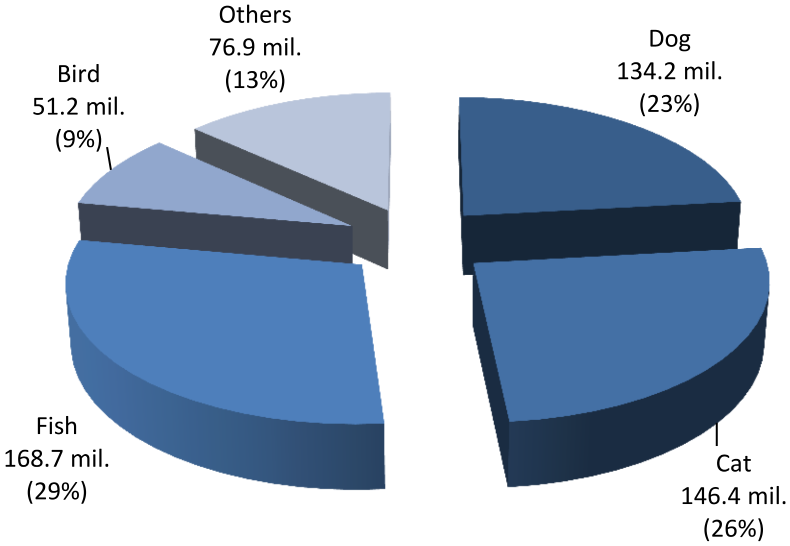

FIGURE 10. Total number of pet owned in US and Europe

Looking at these figures, it is obvious that the market for pet products is vast and keeps expanding and with it the number and variety of products is continuously growing. Due to the diversity of pets, owners, and needs, full product segmentation is practically impossible but a general classification for common pets and pet-products is given in Table 6.

TABLE 6: Pet Product Segmentation

	BIRDS	FISH	REPTILES
Food, Dinning	Food Treats Sticks Vitamins and health supplements Bowls Water dishes, bottles Feeders	Basic food Holiday food Other foods Vitamins and health supplements Feeders	Food Insects Substrates Vitamins and health supplements Bowls Tweezers
Accessories	Cages Nest materials Nesting boxes Nests Bedding, sand Bathing houses Swings, ladders, roosts Transport boxes Care products Toys	Aquariums Lighting Warming technology Cleaning accessories Water care Filters, pumps, pipes Decorations Plants Sand, stones Background pictures	Terrariums Lighting Warming and humidity technology Decorations Plants Bedding, sand Background pictures

	DOGS	CATS	RABBITS & SMALL RODENTS
Food	Dry food Wet food Frozen food	Dry food Wet food Frozen food	Dry food Hay
Dinning	Dishes (steel, plastic, ceramic) Feeders, waterers Travel bottles and bowls Food containers Treat bags	Dishes (steel, plastic, ceramic) Feeders, waterers Travel bottles and bowls Food containers	Dishes (steel, plastic, ceramic) Water bottles Hay mangers
Treats	Dried animal parts Chew bones, rawhide/porkhide Dental treats Training treats Functional treats Biscuits Other treats	Dental treats Malt, catnip Functional treats Cat grass Other treats	Seed mixes Dried fruits, vegetables Other treats
Supplements	Vitamins Oils Digestives	Vitamins Oils Digestives	Vitamins Salt/mineral stones
Outdoor	Collars Leads Harnesses Address tags Clothes Reflective items Safety vests Boots Chains Yard leads	Collars Leads Harnesses Address tags Clothes Reflective items Safety vests	Harnesses Leads Fences Outdoor runs
Indoor	Beds Blankets Cushions Baskets Stairs Flaps	Beds Caves Baskets Flaps, doors Scratching boards Scratching trees Scratching posts Tunnels	Nests, beds, caves Tunnels Exercise wheels Wooden houses Swings, ladders Other furniture Cages Terrariums
Travelling	Kennels Wire crates Houses, shelters Bags Carriers Trolleys Car and bicycle accessories Fences	Carriers Car accessories Bicycle accessories	Carriers
Toys	Plush/soft toys Rubber toys Latex/Vinyl toys Floating aqua toys Rope toys Training toys Activity games	Teasers Balls Feather toys Mice Activity games	Activity toys
Training and Behavior	Agility accessories Training accessories Clickers Muzzles Anti-bark collars Dry pads Repellents	Dry pads Repellents	
Care	Brushes, combs, shedders, etc. Shampoos and skin care products Hair trimmers Eye and ear care Paw care Tooth care Grooming tables Dryers, towels and bathrobes Cleansing pads Protective pants Parasite prevention and tick removal	Brushes, combs, shedders etc. Shampoos and skin care products Eye and ear care Tooth care Towels Cleansing pads Parasite prevention Tick removal	Brushes, combs, nail clippers etc. Shampoos and skin care products Eye and ear care
Hygiene	Dog waste bags	Open toilets Closed toilets Litters Litter scoops Litter mats	Beddings Litters Toilets Bathing houses Bath sand

7.3 Practical approach: buying to Finland

Despite a rather large number of pets relative to the country's population, the number of domestic pet product manufacturers in Finland is fairly small. This could be attributed to high manufacturing costs as in materials and labor, a possible lack of know-how, or to increasingly high competition from outside the country seen as low prices and well established brands. It is therefore clear that without importing products from abroad a big gap in the retail market would exist, at the customer's disadvantage.

According to a reliable strategic research of the Finnish pet product market conducted by Euromonitor International no further than September 2010 (EUROMONITOR 2010, 1-7), new products and pet pampering trends provide presently a decent growth base for the Finnish pet product industry. With sales reaching almost 48 million euro in 2010 regardless of reminiscent recession times, 3% more value sales were seen comparing to the previous year. According to Euromonitor's study, some other factors contributing to this growth were the "humanization" process as more pet owners started treating their animals as family members, the type of pets adopted (e.g. small dogs usually getting a lot more pampering from the owners, especially in the cold season) and the "convenience trend" seen in the demand for more efficient products (e.g. hair brushes and cat litter).

Having established that the need for pet products in Finland exists and cannot be satisfied locally, before considering possible international sources the customer's familiarity to the products must be evaluated. From this perspective, the products to be purchased could be aimed to: a) benefit from already created success, as a product type with an existing demand or a well-established brand or b) introduce novelty to the market as a new product.

Regarding new products, ideas and sources can be most easily found from "well-known" trade fairs specialized in pet products such as Zoomark (Italy), Interzoo (Germany), Zoosphere (Russia), CIPS (China), Aquarama (Singapore), and Global Pet Expo (US). Alternatively, new products to the local market could be inspired by their proven success in other markets, suggested by suppliers, or own creations produced externally. Although a very attractive thought, having a closer look at the pet product segmentation it is obvious that coming up with a completely new product type will be exceptionally challenging in practice as so many types already exist. A feasible solution that might offer some advantage in the Finnish market could be the use of innovative materials or a more ecological approach following current national trends.

With known products, in small markets like Finland many international well established trading companies seem to prefer to give exclusivity to local wholesalers as opposed to dispatching directly to multiple locations. This is commonly the case with “well-branded” European companies and the reality with many other suppliers that have the luxury to decide to whom they sell. It is therefore imperative to gain and preserve such contracts as they represent the only possible way to access certain brands. The “less-branded” products are more easily accessible from markets like China or India, at a better price but at the expense of quality.

Concerning some product types, it sometimes makes most sense to obtain them from particular geographical locations due to limited availability or price level of the materials contained within. For instance, certain type of absorbent clay used to manufacture cat litter can only be found in nature in a small number of areas in the world (e.g. sodium bentonite).

With respect to the actual purchasing process, depending on the company size, resources available including know-how and purchase volumes, various alternatives are accessible, as previously described in the general theoretical part of the manuscript. In practice, when buying pet products to Finland one or a combination of the following is used: buying straight from the manufacturer (more difficult and expensive with small volumes), using an agent (when lacking know-how or personnel) or from a trading company (safer choice but sometimes more costly).

The specialized pet product distribution channels in Finland (alongside supermarkets and such) mainly consist of independent retailers and retail chains with stores in multiple locations around Finland. Due to their smaller purchasing volumes, independent retailers use as main sources the domestic wholesalers while retail chains might have the possibility to access the international market directly.

Mainly due to big cultural differences, when buying to Finland from countries like China – where ethics and legal matters differ significantly from the European ones – though very price attractive it raises multiple risks. This makes enforcing a contract fairly impossible and constantly brings up questions of trust. To partially overcome such difficulties, it is safe practice to visit and inspect the suppliers' plants and offices in person and additionally ask for references that might bring vital information. In conclusion, it is then preferable and more rewarding to aim for longer trustworthy relationships with such partners.

Unlike Finland, where quality standards and requirements are rather high and inspections strict especially on foods, in many other countries the legal system is less active and restrictive. The goods won't pass into Finland unless properly documented and thoroughly controlled. To avoid complications, is better to deal with internationally experienced and certified suppliers. An extensive description of requirements for pet foods in Finland can be found from the Finnish Food Safety Authority Evira (EVIRA 2011).

Similar variations and complications exist at the financial level as well. While within Europe more flexible payment terms and conditions are generally used (sometimes harsher for the first payments only), with countries like China and India, terms as Cash Against Documents (CAD) are more common. This simply means that goods will be paid before received. Additionally, such suppliers also tend to require partial deposit payments (usually 20-50% of the purchase value) before the manufacturing process is even started. This implies that the company's funds will be tied to the transaction for a longer period of time.

8 SUMMARY

With continuously rising competition and increased dynamism in international markets, cross-border business though theoretically simplified at governmental and legal levels gets far more challenging in practice due to a higher degree of complexity in the supply chain. In consequence, the potential of the purchasing professional should be maximized and her/his skills sharpened to cope with advanced technology and higher product variability. Although the fundamental principles of purchasing remain valid, the role of the purchaser in the organization is rapidly growing and becoming more multidimensional extending to both ends of the supply chain from buying goods and services to sales.

Theoretical studies and research as described in this manuscript can of course prepare the professional purchaser up to a certain level. It can introduce available tools, mechanisms and methods, present case-studies and practical examples, commonly used approaches, and reference supplementary professional literature for additional study. It can define roles and objectives, discuss major factors affecting purchasing decisions, present advantages and drawbacks of various organizational structures, and proper ways to manage suppliers and transportation. As each company has its own rules, practices and working culture, theory can only guide and direct as a good starting base, while in reality one always needs to rapidly adapt to given situations learning the important details through practice and by experience. When trading internationally cultural differences must be considered and tolerated in the spirit of good business partnership and communication done in the outmost suitable way as the broadest common source of misunderstanding.

Tough theoretically it is possible to save money through effective procurement, in practice it is extremely difficult to implement as sufficient resources are usually missing and time is always of essence. However, through enhanced internal organization and responsibility awareness, a better understanding of the customer’s situation and by responding properly to fast changing and differing needs, procurement can be an important source of superior value creation in any organization.

Regarding the pet product industry, the growth seen so far is expected to continue without any big fluctuations, according to the prognosis made by Euromonitor (EUROMONITOR 2010). Nevertheless, with current recession times consumers might try to limit purchases on pet care products and pampering and concentrate instead on the more essential and affordable items such as cat litter and foods.

As the number of pets owned in Finland is steadily growing and there is a clear demand for dedicated products, in order to better explore the growing potential of the local market two directions could be followed in possible future studies: reverse marketing or the possibility and feasibility of developing more profitable local supply sources and the higher integration of pet products into supermarkets as a wider distribution channel.

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