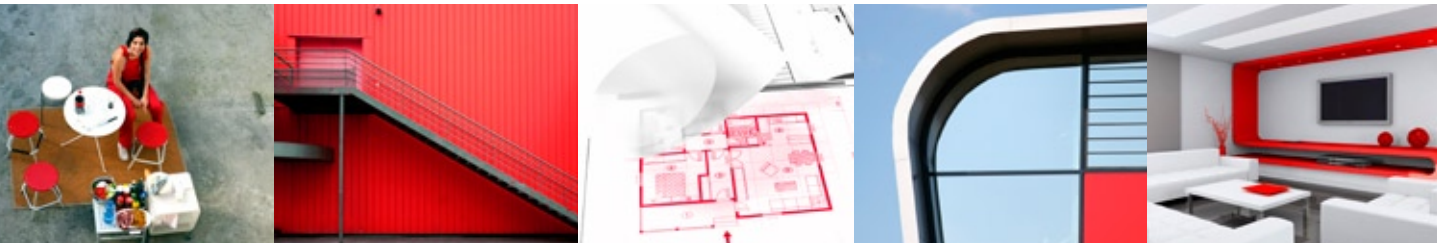




FURNITURE INDUSTRY IN RESTRUCTURING : SYSTEMS & TOOLS

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Guidelines

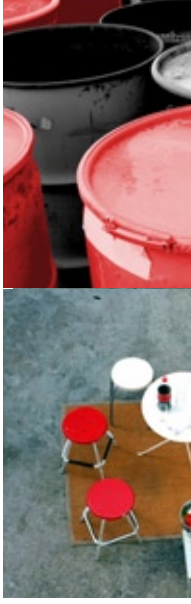
IN-HOUSE MANUFACTURING OR OUTSOURCING ?



Co-funded by the EUROPEAN UNION
European Social Fund
Article 6 Innovative measures

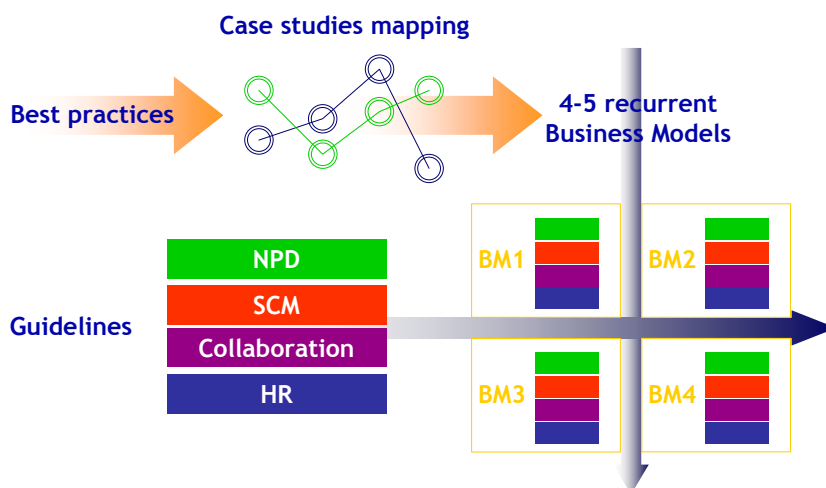
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The globalization is changing the structure of labor intensive industries such as the furniture industry. Increased imports at lower prices force the European manufacturers to look for competitive edges and if necessary to restructure their operations. Some looked at their business model, other at the product, the production, productivity or the relation with the final consumer or a combination of some or all of these different aspects. The solutions, some more successful than others they come up with are multiple.

The FIRST project has the ambition to look into this subject with the aim to formulate recommendations to serve as inspiration to manufacturers. The methodology used was to analyze 30 companies that either went to a restructuring or that had particular characteristics in one or more aspects of their business that allows them to (better) cope with the problems arising from the globalization. This analysis should lead to business models from which guidelines on specific strategies could be distilled.



During the work it rapidly became clear that there are almost as many business models as there are companies, and on suggestion of the advisory board of the project, it was decided to concentrate on guidelines for practical strategies in specific fields rather than develop entire business models. The advisory board also suggested to formulate these guidelines in short separate formats easily usable by interested manufacturers.

This way the work resulted in the formulation of six guidelines around specific activities: product development and innovation, supply chain management, industrial co-operation, outsourcing, human resource management and electronic communications. In parallel the partners developed a sub contracting database for manufactures interested in co-operation as an instrument of increasing such co-operation between manufacturers in the EU and especially with manufacturers in the most recent EU Member States. Information on the project and on the database can be found on the UEA web site www.ueanet.com.

The analytical work has been done by the partners under the leadership and guidance of the MIP, the Polytechnic University of Milan and of AIDIMA, the Spanish technical furniture center. BFM, MEDIFA and the UEA and some of its other members contributed in the best practices and the redaction of the guidelines. Ifabrick, the information department of MEDIFA was responsible for the Web site and database.

The current booklet formulates guidelines on trade-off between in-house manufacturing and outsourcing in the furniture industry. It is not meant to suggest that European furniture manufacturers should follow the strategies described, but the booklet wants to contribute to the reflection on this subject by those manufacturers who feel that it might fit into their business model. We hope it serves them well.

Bart De Turck
UEA secretary general
FIRST project manager

I IN-HOUSE MANUFACTURING OR OUTSOURCING ?

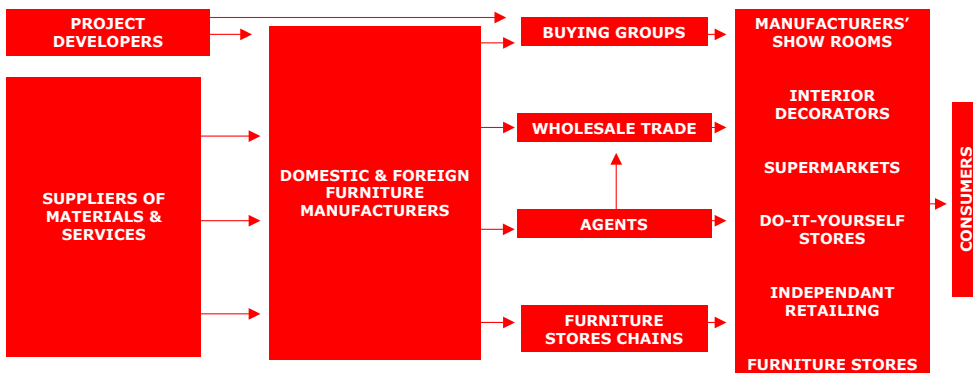
Supply Chain Management

With the exception of Italian and Danish furniture manufacturers, the European furniture manufacturers are not used to cooperate between themselves. In Italy and in Denmark have recorded some success because they cooperate, subcontracting being widely used.

To think "Supply Chain" is a must. In addition to Italy and Denmark, the office and contract furniture sectors have also developed some "sub-contracting" activities efficiently interpreting the furniture supply chain. There is an efficient process when analysing the furniture supply chain.

Outsourcing as a strategy

The advantages for outsourcing are well known. The furniture manufactures are already outsourcing cleaning activities, printing ones, stands building in fairs without any problems. These types of activities have never been a part of the key activities of the firm, and the manufacturers know that they can be done cheaper and more efficiently by external suppliers. This can be also be done for parts of the internal production process. Here also third parties can play an important role. Outsourcing is always based on the decisive choice, based on a clear analysis of our own company and its environment. Outsourcing is therefore always a strategic decision.





2 OUTSOURCING RATIONALE

Why do organizations outsource? What benefits do they seek? What drives the initiative?

The answers to these questions are wide and varied. Some of the most common, however, are listed below:

Organizationally-driven reasons

Enhance effectiveness by focusing on what you do best
Increase flexibility to meet changing business conditions, demand for products and services and technologies
Transform the organization
Increase product and service value, customer satisfaction, and share-holder value

Improvement-driven reasons

Improve operating performance
Obtain expertise, skills, and technologies that would not otherwise be available
Improve management and control
Improve risk management
Acquire innovative ideas
Improve credibility and image by associating with superior providers

Financially-driven reasons

Reduce investments in assets and free up these resources for other purposes
Generate cash by transferring assets to the provider

Revenue-driven reasons

Gain market access and business opportunities through the provider's network
Accelerate expansion by tapping into the provider's developed capacity, processes, and systems
Expand sales and production capacity during periods when such expansion could not be financed

Cost-driven reasons

Reduce costs through superior provider performance and the provider's lower cost structure
Turn fixed costs into variable costs

Employee-driven reasons

Give employees a stronger career path
Increase commitment and energy in non core areas

3 FOUR MAIN REASONS FOR OUTSOURCING

Too much specialized work

Some products and processes are basically too much specialized that they are more expensive or risky to manufacture especially if either a specific knowledge or a machinery up-to-date is necessary. A specialist can in this specific case, deliver a higher quality product.

Insufficient capacities

Outsourcing is a solution in case of insufficient industrial capacities. Then, a need for serious suppliers is necessary. This allows an optimised allocation of machinery or in any case, a better allocation at a cost that can be lower than the company can afford.

Overcapacities can be temporary. If the orders are reduced, the company can ask the suppliers to manufacture the products to be delivered. Even in these short term relations, a confident relation can be developed with the suppliers. In the contract business, this type of relation (regular outsourcing) is very frequent. Companies rely on other manufacturers that can assist them on a mutually profitable basis.

The supplier is cheaper

If the suppliers' prices are lower than internal costs, the financial aspect is to be considered. Here are also included the costs related to the quality control of the materials and semi-finished products. Also are to be integrated the transport costs of materials from the supplier to the sub-contractor as well as the control of the delivered product.

The outsourcing of products and processes can result either in the selling of machinery or in the decision of not purchasing new machinery. The capital structure of the company can thus be reduced.

To excel in key activities

Thanks to outsourcing, the attention can be oriented to key activities. An increased excellence can be devoted to these key activities. These activities are not limited to production but also to new product development. Secondary activities and organizational problems can also be outsourced.

This requires some efforts to positively develop a good relation with the sub-contractors. To invest in a long-term relation with the sub-contractor is essential; to learn the one from each other is also profitable.





4 PROS & CONS OF OUTSOURCING

Outsourcing in brief

For those looking for outsourcing parts or the totality of production processes, the pros & cons of outsourcing are presented below. Any element of outsourcing is not applicable in any situation: it depends on the reasons for outsourcing and on the way the cooperation is conceived. Excellent agreements are essential.

Advantages for outsourcing

Reduced costs for manufacturing

The most important justification for the companies who resorts to outsourcing is petty expenses for searching. More of that companies which want to do all in their own way have to spend more for researching, development, marketing and launching. The access to the more profitable structure, from the point of view of an external supplier and the specialist's advantages, are in fact the most obvious technical reason for which companies resort to outsourcing.

Improving of the company's focus

The companies can concentrate on the broader scale of business sections, while some details are up to an expert. For more companies, the only reason for which they are using outsourcing is the fact that different type of activities needs time and attention. Most of the time the solutions are blocked somewhere in so called "decision gridlock", at the middle management. This thing produces financial losses that will affect the future of the company.

To gain the access to the world class capacity

Resorting to the specialized sub-contractors, the companies access to their investments in technology, methodology and people - in long time made investments. Among the capacity of suppliers we can also mention the gained experience in this field through the work with other clients with similar demands.

Inside available resources for other purposes

Many times the redirected resources through outsourcing are the people. By entrusting some adjoining operations to some outside companies, the company can redirect these employers to other more profitable activities. The employers who led their forces to inside of the company; now can direct them to the outside, to the client.

Non-critical business functions

Outsourcing is the way to decrease the investments which had to be made in adjoining business activities. Each company has to choose between purchasing necessary resources through big costs, in a short period of time and with unsure results or can define the exact costs through following special procedures, according to the discussed and approved products or components, for a limited time.

Shared risks – availability of better technology

Companies that choose outsourcing become, in a short time, more dynamic and eager for changes to be able to face new modifications enforced by today's economy. Investments risks made by a company in different fields are enormous. Markets, competition, laws, financial terms and technology are changing very fast. It is very difficult to be posted with the changes, especially when these ones include big resource investments. When we resort to outsourcing the risks are divided between several companies. A specialized supplier does not invest on behalf of one single company, but on the behalf of all clients. By sharing investments, the risks for one company are decreasing.

Improvement of production and abstraction of delays

The increasing of production – more products or components are processed outside the company in a shorter time and this way the company's resources are pointed to main activities. The contracts stipulate the delivery terms for the products or components and this way any delay becomes company's responsibility. All parts of an outsourcing project can be closely followed.

Additional profits for employees

The productivity and efficiency of employees and management generally increases. The employees will be included more often in the activities in which they have the necessary skills and this way their self esteem will increase. The major benefits can be registered not only in what relates to decreasing of the costs, but regarding the receptivity of the company. The redefinition of the job, a better usage of the employers and resources have the big chance in making decisions concerning the offer of some inside activities to the specialized companies.

Better stock management

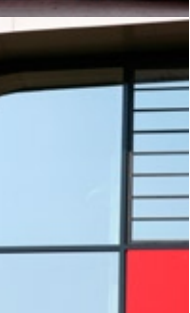
The problem of stock is also outsourced, usually the components or products arriving just-in-time.

Drawbacks for outsourcing

Many hazards exist in outsourcing. Responsible managers should be aware of what can go wrong and what steps could be considered to mitigate these risks. This section highlights some particularly frequent challenges.

The sequence of the listed items does not imply any priority: in some projects one of these risks may constitute the dominant problem, although the same risk is completely insignificant in other outsourcing scenarios.





Underestimation of communication costs

The long distance and higher expenses for communication when working with sub-contractors require a completely new set of management techniques.

Inadequate governance

You need an in-house steering committee to oversee the work of the supplier. The size of the steering committee should be a certain percentage of the working time of some of your employees.

Loss of control over key information, crucial knowledge and technical staff

The technical staff, their know-how, and the documentation they produce are controlled by an independent supplier that has its own balance sheet and its own interest which might be different than your interests.

Loss of leadership in business relations

Outsourcing relations have the tendency to expand. The supplier might take over leadership in the buyer's business relations; in time some of these relations may be managed by the supplier, and the communication will pass its desk.

Your business continuity

Your dependency on the supplier might grow in time. How will you continue your business — in particular after switching to another sub-contractor or bringing the production back in-house?

Underestimating backlash and resistance of the existing in-house team

The existing in-house team has an important say when know-how has to be transferred to the supplier's staff. In this way they have a great deal of influence on the success or failure of the envisioned outsourcing scenario.

Dynamic of costs

Salaries in enlargement countries have been growing steadily, and further increases can be anticipated. In addition, the sub-contractor might change its pricing strategy.

Sly and unfair suppliers

The provider might turn out to be unexpectedly clever and sly and could abuse its superior experience in outsourcing projects to the disadvantage of the customer. Thus, the cooperation might end in a very unpleasant way that could be surprising.

Suppliers working for competitors

In time the supplier might work also for your competitors. In this way business know-how that has been trustfully transferred to the supplier at the onset of the relationship might be used competitively against you.

How to prevent the sub-contractor from becoming a competitor

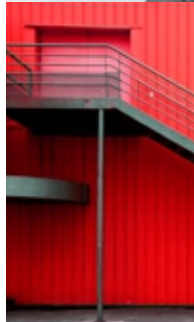
You have to transfer your business know-how at the beginning of the relationship. The sub-contractor controls the technical staff and in this way the technological know-how. The supplier's employees have lower salaries — i.e., an excellent cost structure. What should stop them from being successful as competitors in a few years? Perhaps during these years the vendor has accumulated some capital and might think, "Let's headhunt a few of the customer's best staff and start a little business over there."

Risk of failed projects

You might suffer high consequential damages when a product is not delivered on time. This makes you vulnerable.

Distribution of risks between you and your sub-contractor

The sub-contractor is required to deliver according the outsourcing contract. Discontented customers can resort to litigation, which may or may not be successful. This is one side of the coin. The other is that you do not get the needed components or products, the fate of your entire business might be at stake.



5 THE STEP-BY-STEP PLAN

A PROGRESSIVE SOLUTION

The following step-by-step plan allows you, through questions and remarks, to thoroughly analyze your production processes or part of them in order to check if they can be outsourced. Then the question is "In-house manufacture or outsourcing?"

Notwithstanding the capacity problems, an immediate action is necessary. Those looking for structural cooperation, have to start with a strategy on paper.

The step-by-step plan offers some arguments about which to think about and helps you to take a decision in a structured way and to go for a negotiation.

Nota Bene

You can also use this step-by-step plan using the FIRST website www.ueanet.com/first

STEP I

Describe your own situation

In-house manufacturing or outsourcing is always a conscious choice. Even temporary sub-contracting due to exceptional excessive orders is a strategic option. You can always decide what is best for your company in case of exceptional situations.

To take a wise decision, it is important to analyse your own company by using the following questions:

- What are the objectives of my company?
- What is our strategy?
- What are our strengths & weaknesses?
- What are the opportunities & the threats that my company may face?
- What are the products that we can exclude from our portfolio and on which markets?
- Is my company in a supply chain based on cost, a supply chain based on cycles or on a supply chain based on innovation?
- Which is the role that my company plays in these chains? In which role am I the best?
- What are my growing markets?
- Should my strategy be adapted?

To answer to these questions you can ask www.ueanet.com/first/help.htm

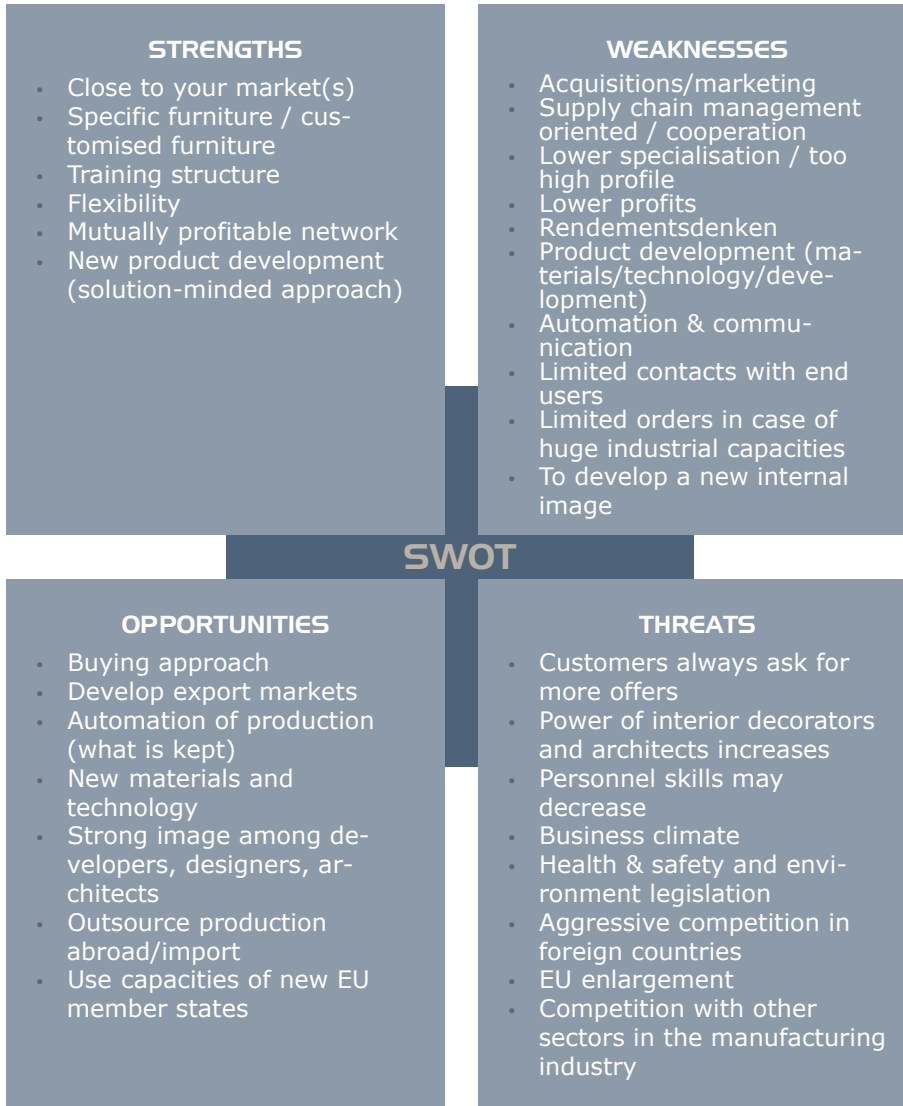


Diagram 2: SWOT analysis of the furniture sector





STEP 2

What can I outsource and what not?

- What are the semi-finished and final products that my company manufactures?
- Using which in-house processes?
- Which are the key competencies (knowledge & skills) and the key activities (products in markets) of my company?
- Which are the production processes or parts of them that can be considered for outsourcing?
- Write the non-financial advantages of outsourcing in a column.
- Write the drawbacks in another column.
- Analyse the in-house manufacturing versus the outsourcing: are ready to be open towards your supplier? Will it be a long-term relation? What is your preferred frequency to receive relevant information.
- Decide also for which products and processes is interesting to go.

STEP 3

Which sub-contractors?

You may find potential sub-contractors either on the FIRST website: www.ueanet.com/first, or through agents, suppliers, trade federations, advertisement, fairs, clients, etc.

Set up a profile of what should be your "ideal" sub-contractor.

What are your expectations and requirements with regard to quality, to delivery delays, to volumes, to flexibility, etc.

It is crucial to have a clear idea of the potential sub-contractors:

- Are there sub-contractors who can supply the products or processes that you have identified for sub-contracting?
- Are there specialized sub-contractors? Sub-contracting is part of activity of the potential sub-contractors?
- Go and meet the sub-contractors. Elements to be considered:
 - Which is for impression of the company or of the sellers?
 - Does the general manager come to the appointment with you?
 - Ask for references.
 - Has the sub-contractor been certified for his/her quality management?
 - Visit the sub-contractor's factory.
 - Do you feel the professionalism of the sub-contractor?
 - What is his/her knowledge about products and technology?
 - Is the sub-contractor actively involved in the negotiation with you considering you an important client?
 - Is the sub-contractor reliable? Can he inform you about his/her own opinion about his/her reliability? Is it high enough for your criteria?
 - Is your sub-contractor solvent?
- Select then one or more sub-contractor(s).

STEP 4

Ask for quotations

- Prepare a very detailed request for quotations. Be the clearest as possible. Use the check-list for and optimised co-operation.
- Send it/them to the identified potential sub-contractors.

STEP 5

The final decision: to manufacture or to outsource?

The decision is based on a combination of financial and other factors. Elements to be considered are:

- Calculate the costs to manufacture in-house and those for sub-contracting (more than the price appearing in the quotes). Compare the two types costs. You can use the example on page .
- Are the financial and non-financial advantages higher than the perceived risks (refer also to STEP 2)?
- Make a "provisional" decision between manufacturing and outsourcing, and go to STEP 6 if you decided to outsource.

STEP 6

Choose your sub-contractor(s)

Your choice should be based on the quotes that you received but also on the characteristics and/or qualifications of the sub-contractor(s) that you have identified during STEP 3. Price is an important factor but not the only one. For a successful cooperation, certainly in the long run, confidence is almost important if not more. Other aspects are also critical: knowledge and specialization, quality, delivery times, reliability for delivery on time, financial position, etc.

STEP 7

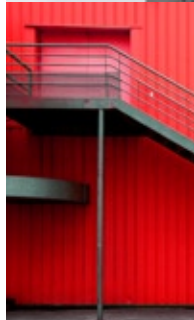
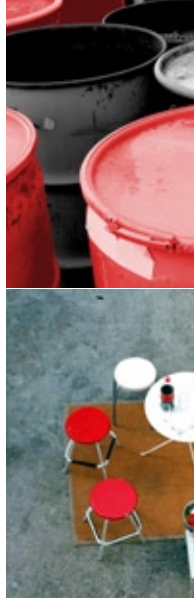
In action

- Arrange an appointment and prepare a contract.
- Order through a test order.
- Order for the first time.

STEP 8

Assessment

- Compare the delivered goods or services with what was agreed on in the contract(s).
- Notify immediately the sub-contractor(s), if the products are not corresponding to what was agreed upon.
- Regularly meet your sub-contractor(s) to evaluate your cooperation.
- Keep always informed about market developments not to change supplier(s) but in order to be able to inspire one another and to keep one another attentive to prices and to come to an optimal supply chain.





6 CHECK LIST FOR AN OPTIMAL COOPERATION

HOW TO AVOID MISUNDERSTANDINGS

The following check list is a practical assistance for contractors and sub-contractors. This check list includes all types of aspects on which contractors and sub-contractors can reach an agreement on in order to bypass misunderstandings.

Nota Bene

Information on the supplier is always the same and fixed. In a long-term relation, this information is rarely changed.

Information on product(s) changes from one order to the other because each time a new agreement is reached or a contract is signed.

INFORMATION ON SUPPLIER

- Company name
- Company address
- Your invoicing address
- Delivery address
- Phone & fax numbers
- Email addresses
- VAT number(s)
- IBAN account number
- Payment conditions
- Prices (VAT excluded)
- Delivery terms
- Guaranty terms

INFORMATION ON PRODUCT(S)

- Description of request(s)
- Quotations dates
- Validity for the quotations
- Binding quotations (Yes or No)
- Which product(s)? Which project(s)? General description and possible codes.
- Design, manuals and others
- Dimensions
- Measurement margins
- Technical specifications
- Certificates (quality, environment, ...)
- Moisture/humidity percentage
- Types of materials used
- Weight
- Product volume
- Defined quality
- Units to be delivered
- Delivery time
- Import duty rates if any
- Transport costs
- Types of packaging
- Responsibility for keeping in stock
- Methods for stocking
- Intellectual property rights
- Warranties
- Various responsibilities
- Direct product control at delivery or also later?
- What about complaints for visible defaults?

7 A PRACTICAL CASE

TO MANUFACTURE OR TO OUTSOURCE?

First case:

To purchase a specific component (to be used in production) costs 48 Euros/unit. The manufacturer does not own the machinery to manufacture it himself. The cost of this machine is 40,000 Euros. The depreciation period is 5 years after which the value of the machine is nil. Interest rate is 4%/year.

To produce a component unit, the machine is used two hours. The machine works 1,000 hours/year and is combined to operate with another machine. The adjustment as well as uploading and unloading of materials requires some operations. Time for these various operations is estimated at 100 hours/year. The cost for 1 hour is 40 Euros.

Costs for materials amount to 10 Euros. Maintenance and replacement pieces costs are nil the first year, 1,000 Euros, the second year and 2,000 the third year, 3,000 Euros the fourth year and 4,000 Euros the fifth year.

Yearly needs for this specific component: 500 units

Component cost if purchased: $500 \times € 48 =$ € 24,000

If manufactured in-house (average price per unit/year):

Depreciation costs: $40,000 / 5 =$	8,000
Interests: $4\% \text{ of } 40,000/2$ (linear instalments) =	800
Materials: $500 \times 10 =$	5,000
Labour costs: $100 \text{ hours} \times 40 =$	4,000
Additional costs: $(0+1000+2000+3000+4000)/5 =$	2,000

Total for 500 components € 19,800

It is clear that is cheaper to produce the 500 units in-house.

Second case:

After one year the price of this component decreases to 36 Euros/unit.

Manufacture it or outsource it?

The production price per component unit (for the second year) is now 19,000 Euros (same as year 1 interests of year 1 deducted) / 500 units = 38 Euros. It is therefore more interesting to sub-contract and to purchase the component.

When can I start again to manufacture in my factory? The machine is already bought and income from selling is almost zero. The other variable costs are to be compared.

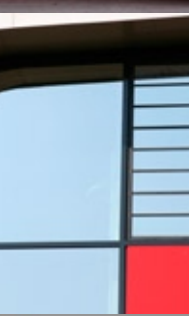
At the end of the second year and for the last three years:

Materials (per unit):	10.00
Labour costs ($3 \text{ years} \times 100 \text{ hours} \times € 40$) / 1500 units:	8.00
Additional costs ($2000+3000+4000$) / 1500 units:	6.67

Total cost per unit in Euros 24.67

To produce in-house is now more advantageous.



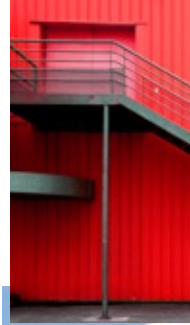


However at the end of the depreciation period, it is not necessary to replace the machine because outsourcing is cheaper.

Besides this, labour costs should be analysed. If because of outsourcing, less hours are worked in the factory and the costs remain the same, then the hourly wage will increase.

Have also to be considered transport costs, quality control, ..., when outsourcing.

Notes





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