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SESSION 2

PRODUCER PRICE INDEX FOR SERVICES

PRODUCER PRICE INDEX FOR FACILITIES MANAGEMENT

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1) Industry output

Computer facilities management is when the client company's IT system is taken over, completely or in part, as part of a long-term contract with the obligation to produce results. The client company is thus leaving the IT services company to implement and use all or part of its information system. Outsourcing the IT function involves a commitment to produce results, resulting in long-term contracts (at least three years). Computer facilities management is an activity which takes place either on the client's site or that of the service-provider. Likewise, a computer facilities management contract may stipulate that all or some of the staff in the client's IT department should be taken over. In France, this transfer of staff is governed by specific, strict legal rules.

There are three main types of computer facilities management :

- **software facilities management**

software facilities management involves the service-provider taking care of the client's IT applications. The IT company has not necessarily designed the IT software concerned but it ensures that they are followed up, upgraded and monitored.

- **hardware facilities management**

This type of facilities management consists of managing the client's IT equipment and IT system. Managing the client's IT equipment includes several types of service: data back-up, managing the security of the IT system, monitoring and maintaining the IT system, storage of server and data, user assistance, etc.

- **overall facilities management (hardware and software)**

Overall facilities management, in terms of the IT services company, consists of managing both its client's IT system and all the applications tools (software). This is a general service (with specifications which can run up to several thousand pages). This type of facilities management is less advanced in France than in the United Kingdom or United States.

In practical terms, it is not always easy to distinguish between software facilities management and maintenance. Facilities management, however, implies services which are more general and of longer duration. Likewise, some IT services companies which store the servers and data of their client companies also provide data processing services.

IT services companies also understand facilities management to mean services relating to the **outsourcing** of some of the client company's work. For example, a company may leave the management of employees' pay or its logistics operations to an IT company which takes over the IT tools relating to these outsourced functions. This type of service must be classified with accounting services, not IT services (regarding the management of pay). Care should be taken to keep this type of activity separate.

As a result of the type of work they do, IT services companies involved in facilities management are large concerns (IBM services, ATOS ORIGIN, EDS…). Similarly, most clients are large companies.

Computer facilities management is easy to classify in **CPC nomenclature**. It is category 8315 (computer facilities management services) within group 831 (consulting and management services). Assigning a product code is therefore very clear and specific.

2) Index methodology

a) the method of fixing prices

There are several methods of fixing prices : **a fixed price with unit prices per unit of work, fixed price using the client's budget approach, or price per hour or day**.

In most cases, the service-provider charges a fixed rate, based on **unit costs per unit of work** (price per pc, per server, per IT application, for example). There may also be a unit cost per unit of

professional work, depending on the qualifications needed to bring the operation to a successful conclusion. Once the overall cost of the service has been calculated, a **target margin ratio** is applied and then negotiated. Most of the time in a contract, targets quantifiable by results are mentioned. There are financial penalties if these targets are not met. In these circumstances, the service-provider calculates a **coefficient of risk** which it applies to the total fixed price calculated as before. Similarly, unit rates are mentioned in the fixed rate if the basic fixed rate is exceeded. If services are changed more substantially, the contract will be drawn up again.

For very large contracts, the fixed rate of costs per unit of work is used in addition to another approach: **the client's budget approach.** In this case, the client indicates his IT budget and his standard of service. The aim of taking over the IT system by a third party is to reduce the budget with equivalent services. A percentage reduction to be applied to the initial budget is often specified. The costs approach lets the service-provider to know if this type of reduction is feasible.

When services such as technical assistance are provided on the client's site, prices per day and per profile (qualification) can be applied. We may be at the limit of the notion of computer facilities management here, as the idea of obligation to produce results is rather blurred.

It is important to know **the cycle of a computer facilities management contract.** The following phases can be identified: pre-sale phase, transition and takeover phase, continuous service and reversibility phase. The price becomes really final, together with the scope of the contract, after the transition phase.

The price of each contract is updated once a year, on the anniversary of the contract or on the 1st of January. The price of the contract may be indexed to specific indices, in some cases taking productivity gains into account. Negotiation by mutual agreement does not seem to be the rule for updating the price of contracts.

b) the method of monitoring prices

We have identified three major types of method of monitoring prices of computer facilities management :

- methods based on **monitoring prices of contracts**
- methods based on **average prices per unit of work and per profile**
- **model pricing**

Average prices per unit of technical or professional work can be monitored. Monitoring average daily prices per profile or qualification (unit of professional work) is particularly relevant in cases of technical assistance on the cilent's site or fixed rate work where the "workforce" component is preponderant. Average daily prices must be monitored per profile and not taking all profiles together. The same applies to monitoring prices by unit of technical work. It may be a question of price per PC, per server or per application. With regard to prices per unit of technical work, the "services" part should be taken, at most, and the "pure equipment" part should not be incorporated. In some cases, the IT company buys and/or replaces the client company's hardware. It is not the price of a service.

The way in which the profession operates (each contract is unique) and the method of setting prices (analysis of costs and application of a margin ratio) are arguments for using **the model pricing approach.** This approach consists of taking an existing contract or drawing up a purely fictitious contract, breaking it down according to all its cost headings. The first step consists of identifying all **the cost headings**, and finding **the unit costs** as well as **the volume** to establish the cost for each heading concerned. **The overall cost** will be the sum of the cost headings. It is not obvious that the total cost changes every quarter, it may change every six months or every year. It should be noted that productivity gains are taken into account in this approach, theoretically. We then apply **the company's average margin ratio over the quarter** to this total cost, to get closer to a market price. The margin ratio is often identified as follows for a contract: $TM = \frac{P - C}{P}$. In this case $P = \frac{C}{1 - TM}$.

The following table (with the prices in k euros) gives **an example of model pricing** :

description of the service	unit of work (UW)	cost per UW	volume	cost * volume

project director	day	0.5267	4200	2212
project manager	day	0.3744	6510	2437
engineers	day	0.3276	12600	4128
technicians	day	0.2254	18900	4260
office equipment management	station	0.1089	20000	2178
help desk	call	0.0218	20000	435
energy dedicated CPU	MIPS / month	0.7500	5245	3934
energy shared CPU	MIPS / hour	0.0014	85000	122
energy CPU Back-up	MIPS / month	0.1824	500	91
dedicated storage	Giga / month	0.0096	17000	163
shared storage	Giga / month	0.0180	1300	23
magnetic media assembly	number	0.0020	120000	245
VSM assembly	number	0.0012	53000	64
running mini servers	number	0.2016	745	150
monitoring mini servers	number	0.2148	252	54
back-up of mini servers	number	0.0876	941	82
Overall cost of service				**20 579**
Average profit level in %				**15.32**
Price of fictitious contract				**24 299**

The advantage of the model pricing approach is that the **cost structure is fixed** and so there is no "average" to be calculated, which is always something of a problem with structure effects. On the other hand, **an average margin ratio on all projects** is taken into account, which can limit the scope of this approach. Several fictitious contracts may be chosen. **The aim is to have costs which are representative.** For example, it would be a mistake to take a contract with unit workforce costs only if this type of cost is not the main one in the company. We can gather all the factors together and calculate the price of the fictitious contract or let the company do the calculations. In the latter case we lose explanatory information but this may be necessary in the light of the confidential aspect of the margin ratio.

In fact, **the model pricing approach must give results which are more or less equivalent to monitoring the average daily price per unit of work**, when the segmentation criteria have been chosen appropriately. If the company continuously follows prices per profile, per unit of work, the "monitoring average price" approach will be relevant and easier to implement. If, on the other hand, the company tends to follow trends in its unit costs and profits without calculating average sales prices per profile and unit of work, preference must be given to the model pricing approach.

As the activity of computer facilities management is based on a contract being drawn up, it would seem logical to follow **the prices of contracts over time.** However, **this type of method has several** drawbacks because the scope of the contract is not always the same over time. This method should therefore be considered subsequently, more as a fall back option if the other methods turn out to be impossible. We can also monitor, within a contract, the prices per unit of work mentioned if the scope of the contract is exceeded.

3) Sampling and weights

Companies which provide computer facilities management services were selected on the basis of the results of the annual survey of services companies. However, the activity of computer facilities management cannot be easily identified through this type of survey. We have therefore used the following **product codes** as the basis of the survey:

- provision of IT equipment and networks
- management of the IT function
- management and assistance in IT centres
- data back-up

We compared this survey base with information provided by the professional union so as not to overlook important players in this market. From **this survey base** we selected the largest companies in a systematic way (above a certain turnover) and the others by sample. Fifty companies were

chosen in this way. Having eliminated the companies which are out of the scope and grouped some companies together, about forty companies, who will be surveyed every three months, are left.

Each company in the sample was visited by a field officer when the survey was launched. During this visit, information relating to the weight of services was collected. The basic item of information used to calculate weights remains **turnover** (excluding purchase-resale of equipment and subcontracting). This turnover will be broken down into three products: software facilities management, hardware facilities management and general facilities management. When average prices per qualification are monitored, we ask for the number of staff per qualification in order to calculate the weights. When dealing with complex cases, each service will be weighted according to its relative importance in the turnover in the company and/or in the company's cost structure.

4) Issues in maintaining constant quality

Dealing with the quality effect poses problems, which are mostly still unresolved. Monitoring the average daily price per qualification (average price per unit of work) presupposes that it always takes the same amount of time to provide a service. This method ignores **productivity gains.** An example of this problem is given in the following table. It assumes there is a service which recurs during these periods. This service is carried out by only one category of personnel.

Period	Unit catalogue price	time spent in D	Price of contract	Average price per D
1	250	10	2500	250
2	275	10	2750	275
3	275	9	2750	306

Between period 1 and period 2, the daily price (catalogue type based on cost and a target margin ratio) increases by 10%. The company therefore decides to increase the price of its service by 10%. Whether we follow the price of the contract or the average price per day (price of contract / time spent), we arrive at an increase of 10%. Between period 2 and period 3, the company makes productivity gains which it does not pass on to the client: the price of the service remains the same. If we measure the average price per day, we deduct that it has risen considerably. Monitoring the price of a recurrent contract is therefore not the same as monitoring the average price per unit of work. More generally, it is the difference between the estimated time spent (when the contract is signed) and the time actually spent on the contract which poses problems. However, the problem is that we monitor average prices per unit of work since recurrent services cannot be clearly identified (problem of unique services).

In theory, this drawback can be eliminated using the model pricing approach. Every three months, the company finds out the volumes necessary for carrying out the service (see example on page 2). In theory, the variations in productivity seem to be taken into account. However, estimating volumes (time spent, for example) based on virtual projects seems to be difficult. Companies rarely alter the volume column in fictitious contracts. Another drawback of this approach is that we require a cost structure relating to a specific fictitious project and an average margin ratio relating to all contracts. However, this seems to be the only way of approaching the idea of market price and not being restricted to an approach by costs. Furthermore, when we aggregate all current contracts together, we limite the effect of atypical contracts, which can have a great impact on the margin ratio.

5) Price measurement challenges

The process of monitoring prices in computer facilities management is still in its beginning in France. We can identify two main points :

- the market for computer facilities management is growing fast. **Frequent revision of bases** may be necessary in order to remain faithful to the economic reality.
- computer facilities management seems to be a suitable sector in which to test the relevance of the model pricing approach. After several quarters, **it will be interesting to compare price trends using two different approaches: average price per unit of work and model pricing.** If there are noticeable differences we should rethink the problem and adjust the methodology.