Average daily charge-out rates in IT in the context of offshore outsourcing

(how can one have lower costs and higher average daily charge-out rates, following on from the discussion started during the 2007 Voorburg meetings)

Denis GAC (France  
Sanna NIEMINEN (Finland)  
Vera NORRMAN (Sweden)  
Seppo VARJONEN (OECD)

Types of services

In IT services in the fields of consultancy, programming and services, in particular those that require qualified labour, professionals customarily make the following distinctions between activities provided:

- **technical support (on a cost-plus basis)**
  The IT services company recruits people who have the right skills and sells on their manpower by the day according to an agreed daily rate, which varies according to the level of skill and qualifications of the employee, without further obligation: This service involves an obligation of means, is commonly called technical support, and is usually billed on a cost-plus basis. This type of service often requires the employee to be mobile and to travel to the client where he/she will carry out the service being offered.

- **complete package service**
  The IT services company sells the client an agreed service, measured by service indicator levels, where possible, and implements their resources - mainly human resources - which are wholly managed by the company: this service involves an obligation of results (the deliverables should correspond to the specifications or proposal, and there will be a delivery date and guarantees, in particular for error correction), is often billed on a complete-package basis, and often includes penalties if indicator target values are not met. This type of service can be compared to a turnkey service.

Almost all outsourcing activities are on a complete-package basis, the client placing complete trust in the service provider with regard to the means and resources used or brought in by the IT services company. The basis of the contract between the company and the client is an obligation of results.
Third-party application management and software development on behalf of a client are complete-package activities. The end result has to be achieved and it is up to the service company to deploy all means necessary to ensure that the result is provided within the agreed timeframes.

In absolute terms, the place where the service is actually carried out (at the client’s premises or at the service provider’s) is not in itself an indicator of the type of contact or whether the service is billed on a cost-plus basis or a complete-package basis (cost-plus services can be carried out at the service provider’s premises and complete-package services at the client’s premises). However, in terms of frequency, cost-plus services are more often carried out at the client’s premises and complete-package services at the service provider’s.

• services centre
  The services centre is half-way between the cost-plus service and the complete-package service, and is often offered by big IT services companies due to their organisation.

• This type of organisation allows the IT service provider to standardise its services, reducing costs (use of human resources, software, hardware and skills within the company over several projects) and also allows the client to share, supervise and set out responsibilities (project management, contract management etc.) and the timeframes for various elements according to agreements laid down between the provider and the client. This more or less complete type of organisation and delegation of activities requires the client to be much more involved than in the case of a complete-package service.

  Most employees in service centres work at the IT services company’s premises. However, staff can be deployed as technical support on site with the client (front office) or be sent to the client to provide consultancy and expertise services from time to time.
  Service centres supplied by IT services companies are regional or even national structures and concentrate on a particular technology or field (e.g. Java, web technologies, CRM, banking, telecoms etc.), or one client for whom it arranges the outsourcing of all or part of its IT activity. The standardised nature of this type of structure can be compared to software factories.
Payment for services: 1/ when the IT services company deploys its personnel with the client (example 1), the basic unit is usually the daily selling price at which the staff are sold, according to their qualification levels. In this case, the volume of work corresponds to the number of days the staff are made available. The quality of work provided in a day is assumed to correspond to the level of qualifications of the person employed.

2/ when the company works on a complete-package basis for a client (example 2) and accounting of all the resources is done within the IT company, it is also possible to calculate the selling price of the IT service on the basis on the daily selling price. Major operators often work in this way, basing calculations on the progress of current contracts and employee timesheets. However, there is always the risk of making a mistake in estimating the time actually taken by the company. In the case of going over the allotted time, the operator has to take the trouble to correct the selling price with surcharges, exactly like accounting firms and management consultancies. If the team spends less time than has been sold, it will similarly be necessary to apply a rebate (in practice this happens only very rarely as if they are ahead of time, project leaders often go for excessive quality).

3/ in case number 3, it is much more complicated. Tasks overlap and can be pooled and give rise to complex sharing of tasks, separated in time and space. Relations between the statistical service and the IT operator must rest on a mutual understanding of the statistical objectives on the one hand, and of the availability of indicators on the other.

Why are average daily charge-out rates monitored in IT?

The working day seems to be both the basic unit sold by IT services companies and the smallest identifiable unit of measurement for work. The working days sold are calculated to cover employee salaries, other company’s costs and the company’s profit margin.

IT activities belong to a business sector where the production relies on intellectual work, where a “real” service received by the client is difficult to identify due to the uniqueness of the work. Therefore, as a second best solution, a unit of measurement is often the work carried out by an employee during a predefined unit of time, in general, one day.

\[
(n \times w) = \text{salaries} \quad \quad \quad \quad \quad \quad X = \text{turnover}
\]

\[
n = \text{number of units of time worked} \quad \quad \quad \quad \quad \quad w = \text{salaries per unit of time worked}
\]

\[
C = \text{other costs} \quad \quad \quad \quad \quad \quad M = \text{profit margin}
\]

In the compilation of SPPIs, use of time worked as a measurement unit is simple because also the clients’ charges are based on it. The charge-out rate includes all costs passed on the client, including salaries and other variable costs, fixed costs, and profit margins. The coverage of charge-out-rates is thus the same as for turnover and, consequently, deflation of output by an SPPI, where charge-out-rates are used as prices, measures time worked.
Use of charge-out rates as prices presupposes that the quantity and quality of work per time unit is unchanged over time. The method works best if an activity is stable, that is, there are no major changes in work such as an adoption of new technology or re-organisation of work.

(Note: We should not give an impression that the charge-out-method works well in all circumstances. It sound like a natural choice for "intellectual work" but that work is not necessarily based only on pen and paper but on the use of more and more developed capital. In this case the method becomes biased.)

What are the effects of offshoring on companies’ accounting?
The clear and openly stated aim of offshoring is the reduction in costs made possible by substituting labour paid at high salaries for labour paid at low salaries. For a given item of work, there will be fewer employees nationally and more work carried out by offshore staff. For this operation, global costs will go down, and this might cause the global price of the service to drop. This fall in price generally benefits both the client (who is often the one to initiate the move, due to pressure from purchasing departments and competitive tendering), through lower prices, and the IT services company, who stands to gain a bigger profit margin.

For the same service sold to a client we have the following process:

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<tbody>
<tr>
<td>N1*w1 salaries charged</td>
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<td>X1</td>
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<td>FC fixed costs</td>
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<td>M1 profit margin</td>
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<td>X = turnover</td>
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Average daily charge-out-rate (1)
Average daily charge-out-rate (2)
Average daily charge-out-rate (3)
Average daily charge-out-rate (n)

\[(n*w) = \text{salaries}\]
\[n = \text{number of units of time worked}\]
\[w = \text{salaries per unit of time worked}\]
\[C = \text{other costs}\]
\[M = \text{profit margin}\]
Situation 2 / the company decides to hand over tasks previously carried out in-house to an external service provider.

Situation 3 / these jobs cost the company less. Less work in-house but more work outsourced abroad or to a region where labour costs are less expensive. If the company wants to keep its profit margin unchanged, the selling price of the service will be lower. However, it must be remembered that project management costs will be higher: travel, time allowed for training, explanations, integration (global consistency of deliverables made up of elements carried out independently), checks, more rigorous tests etc.

Situation 4 / the benefit gained through this operation is generally shared between the IT services company (in terms of high profit margin) and the client (in terms of lower price).

\[ M_2 > M_1 \] the company’s profit margin has gone up
\[ N_2 < N_1 \] employment of the company has gone down
\[ X_3 < X_1 \] the global selling price of the service has gone down

Benefit to the company: \( M_2 - M_1 \)
Benefit to the client: \( X_1 - X_3 \)

**What about average daily charge-out rates?**

The service sold is no longer just intellectual work carried out in-house. Each working day sold also includes outsourced work. Thus, the charge-out-rate per a national engineer's working day goes up.

\[ X_3/N_2 \] <> \[ X_1/N_1 \]

It can therefore be shown that the average daily charge-out rate varies according to:

1/ the proportion of work offshored \( (T_0/X_1) \)
2/ the change in the profit margin rate that the company allocates itself \( (M_2/M_1) \)
3/ the expected benefit in terms of cost \( (C_0/T_0) \), and therefore the level of salaries for the work in the foreign country. Any change in salaries in the foreign country will therefore affect the cost of the work, and therefore the price of the service, all other things being equal.

It may also be observed that the practice of offshoring can have an effect on the change in the pyramidal structure of qualifications in the operator country (France), boosting the proportion of high-level qualifications at the expense of less specialised tasks which can be handed over to offshore countries. Where average daily charge-out rates are recorded, the effect of structure can bring about a rise in average daily charge-out rates.

The problem of offshoring can similarly be found in any situation where work is outsourced, even within the same country and in any business sector. It is just more acute in the field of IT, due to the ease of relocating processes and the significant differences in salaries for very similar levels qualification.

**The average daily charge-out rate is not a good indicator of the service price if it does not change in line with the price of the service sold.** This is what happens when the production function changes and when IT jobs are outsourced.

The price for a unit of work from a national employee no longer changes along with the global price of the service sold. It is therefore no longer a good indicator at the micro-economic level, or at the macro-economic level, of the producer price index.

We are faced with a quality effect, which creates a mismatch between the two. One hour of work by a national employee no longer has the same contents in terms of quantity and quality when it includes work outsourced to another country.
However, the ‘quality effect’ may be considered to be reduced when the production process is stable, which is not the case currently.

\[
(n2 \times w2) = \text{real salaries}
\]

\[
n2 = \text{number of units of time worked}
\]

\[
w2 = \text{real salary unit per unit of time worked}
\]

Average daily charge-out-rate (1)

Average daily charge-out-rate (2)

\[
C = \text{other costs}
\]

Average daily charge-out-rate (n2)

\[
M = \text{profit margin}
\]

\[
X = \text{turnover}
\]

‘Other costs’ have gone up, the number of days worked by employees of the IT services company have decreased, as they have been taken over by external subcontractors, and the average daily charge-out rate has gone up, while the price of the service has potentially remained the same. A rise in average daily charge-out rates does not translate into a change in the price of the service.

What should we do?

1/ The adoption of the **average daily charge-out rate as a price-indicator may be a satisfactory solution** where the content of one hour of work invoiced remains stable over time. This is not currently the case, and the proportion of work offshored will probably increase further. According to professional opinion, for the IT sector in France:

- 2002: 2% of work is offshored
- 2009: 5% expected
- theoretical ceiling: 15%

It can also be supposed that at the end of the offshoring process, when everything that can be offshored has been, the method of monitoring average daily charge-out rates will again be a possible method for monitoring the price of IT services.

2/ **Giving up on average daily charge-out rates** is a possibility where other solutions present themselves: **prices per unit values**, frequently put forward by operators, generally prove difficult to monitor because the complexity of the organisations of these big IT operators (in particular the worldwide distribution of output centres), often makes these indicators impossible to monitor.

3/ One solution, probably the most effective, is to **take account of the offshoring effect** by making surveyed operators more aware of the effect of offshoring on national average daily charge-out rates. The practical solution is difficult to implement easily and systematically. Bearing in mind that what is wanted is a real change in the price of the service, it is important to bear in mind that the national average daily charge-out rate should be corrected according to the level of service that it covers and to convince surveyed companies of the bias that would be introduced if this correction was not made. As a matter of fact, a proper correction requires that the “real” service can be identified, and in this case the method would in effect fall into the category of model pricing.

The price level of this integrated service also depends, in theory, on the average daily charge-out rates in the foreign country.

This foreign average daily charge-out rate could be representative of the price index of imported IT services, if it is possible to calculate it at all. That will never be easy. And that is probably just as
difficult for national accountants when they come to measuring and integrating the importing of services (2.8% of resources in NAF rev1 '72' in France) in their supply and use tables.