

## **Costs**

IS costs are made up of 2 elements – tangible and intangible, but they are often referred to as visible or hidden. IS costs need to be predicted, then reduced where appropriate, though not at the expense of the net benefit level and, in short, managed. IS cost predicting even for visible projects has been notoriously bad, an error factor of 10 or even higher is not uncommon. The inaccurate forecasts lead to a number of problems including,

- Perhaps most obviously, a lack of confidence in IS
- The fact that projects are chosen that should not be.
- Worthwhile projects are not undertaken because the organisations finite resources dry up.

Main difficulty in IS cost estimating is that most forecasting techniques need 2 things that candidate IS projects do not offer

- A detailed knowledge of the intended project in advance.
- Historical basis from which to generate the estimate.

It is not only the potential costs of IS projects that are mysterious. Many organisations simply have no idea what their current level of IS investment is, nor what costs account for what percentage of that investment. What is currently spent on IS is surprisingly hard to quantify.

### **Checklist for costs**

Hochstrasser and Griffiths (1979) offer a checklist covering

- Hardware costs – includes all machinery. They are inherently visible but increasing dispersal means this may be difficult to locate and audit.
- Software costs – cheapest solutions will be off the shelf packages. In house developments can account for huge, unknown sums/ .
- Installation costs – system installations vary in cost and complexity. Some may require external expertise the cost of which must be included.
- Environmental costs – meaning the physical environment of IS, wiring, furniture, air-conditioning etc. as well as human environmental costs such as health and safety.
- Running costs – electrical power, data communications costs and subscription fees.
- Maintenance costs – must be established whether they are planned and predictable through contracts or less certain in house staffing.
- Security costs – measures taken to reduce danger from deliberate or accidental damage.
- Networking costs – network hardware, software and management. Costs are now so significant that they may be underestimated but are rarely overlooked.
- Training costs – almost invariably underestimated .
- Wider organisational costs – incompatibility costs, new salary structures, transitional costs and management costs.

## **Auditing IS costs**

What can loosely be referred to as auditing the IS investment involves identifying all costs and valuing the past IS investments. It is not enough to be aware of what IS elements incur costs but also to know how much the organisations past investment in IS is currently worth. Keen (1991) suggests that this process can be helped by creating an IS asset balance sheet even though the most valuable elements of IS, the data and software cannot be counted as assets for tax purposes, they still add to the value of the organisation.

IS investment discretion enters the equation when selecting between infrastructure projects, new application projects and research projects. Each of these carry different demands and offer different gains and a mixed portfolio is desirable. User support must form part of the investment to actually realise the intended benefits from past as well as current and future investments. Investment comparisons across time, industry and spending elements helps in the process of investment management, but the understanding of what gives value to information and the understanding of what techniques to employ to choose between investment candidates is essential.

## **Charging for the IS function**

IS cost recovery also called charging, chargeout or chargeback is the notion of recovering from business areas IS associated costs. The costs incurred by an IS section can be treated in a number of ways. At its simplest level they can be treated as a general, shared overhead that must be covered as part of the overall business operating costs. Clearly with this treatment, IS costs are neither assigned nor recovered from any specific business area and there is no internal charging. Once the organisation moves away from the simple treatment of IS as a shared overhead then a particular IS cost recovery mechanism must be chosen.

Each method must be then implemented through the use of appropriate calculation measures. The four internal charging methods are

- **Non usage allocation**  
Logic of this method is that user areas pay according to their ability to pay. Aims to recover all the organisations incurred IS costs. While offering some measure of fairness the method gives the charge payer little sense of influencing IS costs and so little incentive to lower costs. Simplicity of the approach is appealing but can lead to IS costs escalating as IS is perceived as a free service since the user area has already paid, or will pay, for it irrespective of individual use levels.
- **Usage based allocation**  
Seeks to be fair through the logic of user areas paying according to their use. The approach suffers from 2 main problems, the first is that usage based charging can discourage use even when such use would be to the overall benefit of the organisation. The second is that additional overheads are created since time recording systems are required to chargeback for development effort used. All IS costs are to be recovered. Since IS costs are set after the event it can still be difficult for users to control their IS expenditure or make informed IS decisions.
- **Economic pricing**

Similar to usage based allocation in that IS services performed are recorded and charged for, however the amount charged for each item is now a price rather than a cost allocation. Once IS costs are distinguished from IS pricing then the decision must be made whether IS should be a cost centre – recovering all or part of incurred costs to a more or less break even point – or whether it should be a profit centre – having its own value adding chain that creates a margin over costs. IS cost centres can suffer from having little incentive to be productive but profit centres can suffer from having little incentive to support business objectives when there is a sharp focus on the IS sections bottom line profit figures.

- Contract or market pricing  
Moves away from the after the event approaches since it recovers costs by a negotiated contract covering a fixed service for a fixed fee. Users are better able to plan with this method as they have agreed the costs and contracts in advance. This method is frequently associated with a free market generic IS strategy since comparisons with potential external providers are a significant force in agreeing the contract pricing.

#### IS as a cost centre

- Promotes interactive planning
- Forces managers to manage variances
- May lead to beneficial conflict
- Forces decision making
- Re-enforces the SLA and capacity planning process

#### IS as a profit centre

- Easy to understand
- Promotes business management
- Eases external comparisons
- Establishes financial rigour
- Allows outside sale of IS services.

Moving from a cost centre to a profit centre is going to complicate the loyalty held within the IS service unit. The business importance of IS sets the framework for the internal charging policy decision. Earl (1989) defines 4 IS operating principles, these are IS operating as,

- Service centre that forms an overhead charge.
- Cost centre that recovers only costs incurred.
- Profit centre that adds a margin to costs
- Hybrid arrangement containing features of the previous three.

The charging systems indicated as being appropriate for the different environments are

1. Allocation chargeback – suitable for support segment and during initiation phase.
2. Average cost chargeback – suitable for factory segment and during control stage.
3. Standard cost chargeback – suitable for turnaround segment and during integration stage.

4. Flexible price chargeback – suitable for strategic segment and mature stage.