Costing IT Services – An Introduction to Services Based CostingÔ
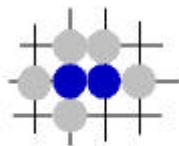
Introduction

Nowadays every organisation provides services. Some organisations provide nothing but services to their customers whilst others provide services as the "Value Add" to physical products. However all organisations, whether they be large or small, provide services to their internal customers and consumers. These internal service departments, such as Information Technology (IT), Human Resources, Finance and Accounting, Supply & Purchasing, Business Planning & Development etc. are growing as the traditional departments of manufacturing, engineering, development etc. are shrinking due to efficient usage of technology. In addition, those departments providing external services have also grown rapidly as organisations use their services as a competitive differentiator.

The rapid growth in the need to provide services as a competitive differentiator has pushed organisations into developing, manufacturing and delivering services often without the disciplines for control and management found in the manufacturing environment. This growth has tended to occur over a period of time "by stealth" and once compact, easily managed departments have grown to provide ever wider and more complex ranges of services. In many instances this has led to uncontrolled, runaway costs for delivery of services to both external and internal customers alike.

This rapid growth in the provision of services has also led to a rapid growth in the need for information - information about services, customers, orders, etc. as organisations try (usually without success) to get some control over their services. This in turn takes huge bites out of the corporate earnings as organisations design, develop and implement new and/or upgraded information systems to store and manipulate that information. New and/or upgraded hardware and software platforms must be purchased. More talented people who can analyse the information and turn it into a competitive advantage need to be hired and then even more people are needed to translate their findings into customer/consumer benefits. The reasoning behind all this of course is that the provision of services is a people business and management believe they cannot use the same business arguments and logic in the development, manufacture and provision of services as they have for manufactured products.

The problem is that traditional methods of cost accounting have not been adequate for the job of costing services. What is needed is a new method that allows organisations to cost their services accurately, taking into account all the many dimensions of service provision. This includes the services themselves, the activities which make up a service, the resources used in the provision of any given service, the resource profiles (ie the typical or average utilisation of resources with regards to activities) and the costs incurred. A few years ago the costing of manufactured goods was revolutionised by the use of a new cost accounting method - Activity Based Costing (ABC) and some organisations have attempted to use ABC for the costing of services with mixed results. Being only two-dimensional (activities and costs), ABC does not cater for the multi-dimensional costing requirements of service costing but it is on the right track - what is needed is a variant of ABC specifically for the costing of services. After many years of research and practical development and implementation such a variant has been developed - it is called not surprisingly Services Based Costing™.

What is Services Based Costing Ô ?

Services Based Costing™ (SBC) is a method of costing services which starts with the identification of required services and finishes with an information base which allows managers to identify **all** service costs. These include the costs of providing services down to an hourly rate, resource usage for the provision of any given service and inversely - services provided by any given resource, and the exact structure of cost allocations to any service. In addition SBC™ identifies the resource profiles which, in the case of human resources or people become highly definitive job descriptions.

Identifying Services

Many service organisations or departments have a range of services which have grown over time to reflect such things as available expertise, historic acquisition (we did this for a certain time/person/function and have continued to provide it ever since), personal interests, empire-building, DIY tendencies and many more. The end result is akin to the menus in many Chinese restaurants - a veritable smorgasbord of offerings among which it is hoped that there is at least one item which will appeal to the customer.

However, just as a restaurant incurs costs ensuring that ingredients are available to make a dish regardless of whether it is ordered or not, organisations incur costs to ensure the <u>availability</u> of a service regardless of whether that service is provided to customers or not. This is the holding cost for services and it is every bit as real and has as much impact on the profitability of an organisation as do the holding costs for inventory of physical product in a warehouse. In order to ensure that the holding costs for services are valid an organisation must first ensure that the services offered are in line with the strategic plans of the organisation.

Justifying Services

Services <u>must</u> be relevant to the business, they <u>must</u> be managed effectively and efficiently and most importantly they <u>must</u> be costed using a rigorous form of cost analysis that takes into account the multi-faceted dimensions of service provision. To do this effectively firstly requires a comparative analysis between the strategic plans of the organisation and the services offered. Many organisations wander into providing a range of services which have little to do with the strategic direction set down in the business plans - managers should ask themselves why each service is being provided, what is the cost to the organisation of not providing it, and/or can it be provided more cost-effectively by alternative methods?

One of the common contributors to the creation of a "Chinese Menu" of services is the fact that the organisation or department does not clearly understand who their customers are nor do they understand the different services required by their customers <u>and</u> their consumers. Many organisations confuse consumers with customers, both of whom can and do have different needs with regards the same products and services. For example, whereas the customer will look for cost-effectiveness, the consumer will look for useability and/or suitability for a particular purpose without necessarily any regard to the cost. Most internal departments deal on a daily basis with their consumers. However the costs of their services are paid for (often as a corporate overhead) by their customers - the managers of the other business units.

All too often, the communication channels between customer and consumer are ineffective and/or fuzzy (poor communication is regarded as one of the major ills afflicting today's business world) leading to a misunderstanding of the services needed and/or used and therefore the costs incurred for such services. When this occurs the service provider has two options - do nothing and risk the continual ill-feeling caused by a lack of understanding of the services provided and their respective costs, or step in and take over the communication role by using such vehicles as Service Level Agreements, Help Desk Systems, Service Usage reports etc.   However, such systems cannot be fully effective unless and until the services provided are properly defined and costed.

Defining Services

Once the services have been identified and justified the next step is to define them in terms of:

- the activities which are carried out in order to provide the service
- the deliverables or end result(s) which a customer or consumer can reasonably expect to receive
- time frames for response/delivery etc
- any conditions attached to the provision of any service
- reasons why the customer should use the service - benefits to both customer and consumer

This list of comprehensively defined services forms the basis of any Service Level Agreement between customer and provider. It also provides the service base which must be managed by any Help Desk system which may be implemented. The process of defining services to the extent detailed above should be undertaken by a team of people which includes service providers, selected customers and, if the services are being provided by an internal service department, representatives of the consumers.

The definition of services is vitally important - how can something be costed, or even efficiently delivered, if its constituent parts are unknown or "fuzzy"? However, even at this point things are not made easy for the service provider - there is considerable disagreement about how services should be defined. One school of thought maintains that services should be defined in terms of the customer's needs, business and level of understanding, and another equally persuasive school of thought dictates that services should be defined according to the service provider's understanding of the service. The reasoning behind the latter is that the services provided often relate to subjects which are outside the common areas of understanding of the majority of customers (especially if they relate to anything technical). However this approach makes it far more difficult to market these services as it is difficult for the client and consumer to see its benefits.

Service providers need to define services according to their understanding of what it is they are "selling" i.e. something which satisfies a customer/consumer need. A service definition is similar to a product description and as such it needs to be concise and completely unambiguous - especially to the people who have to provide the service. This does not mean that service providers cannot, like many manufacturers, cater for customised "options" of basic services. Lack of customer/consumer comprehension about services available to them is an indication that the service department needs to

sharpen up its marketing and start educating its customers and consumers. The lack of marketing, especially with internal service departments, is a major contributor to the communication breakdown problems often encountered between internal service providers and their customers. Different customers will want different services for a variety of different reasons and defining services in customer usage terms is often infeasible and leads to unnecessary complications. There are no short cuts - every organisation is a unique entity in its own right with its own unique way of doing business and thus each organisation must define its services in line with its own strategic plans and direction. This is the only way that service provision can fulfil the role of competitive differentiator.

However, this does not absolve the service provider from analysing, clearly defining and explaining the benefits of each service to both customers and consumers. These benefits should concisely answer such often asked questions as "why should we use this service?", "how do we know when we need to ask for this service?", "what will be the end results?" and "what would happen if we didn't bother?" Many organisations do not design and manufacture services in the way that a product is designed and manufactured. Services often seem to develop and grow through spontaneous evolution and the failure to channel, manage and occasionally cull this growth results in hard-to-define services - hence ever larger ranges in the hopes that the customers themselves will do the defining by default.

Defining the Activities which make up a Service

All services are made up of at least one activity, many are complex composites of many activities in much the same way that a product may be a single part in itself or an assembly of many parts. Each component activity of a service consumes resources - time, people, equipment, accommodation and by splitting a service into its component activities a manager can begin to appreciate how the use of various combinations of resources can affect the cost to provide the service. Those service providers with a narrow focus e.g. watch & clock menders, PC hardware repairers, lift maintenance engineers etc will find that they may not have a need to analyse services into component activities because many of their services are composed of just one activity e.g. "clean watch", "replace motherboard", "inspection of lift cables". However, as stated earlier, each organisation is a unique entity and as such will uniquely identify its services. Getting the linkages between services and activities right can be a time-consuming task however, once analysed and in place the wealth of management information available well repays the effort.

Experience has shown that those service providers with a very wide focus of operations e.g. internal IT departments in large organisations, need to implement Services Based Costing in a two-phase implementation. The first phase will usually concentrate solely on costing and managing Services, the second phase, often implemented after a "bedding in" period of anything up to 3 years, will add another dimension of management information based upon the analysis and costing of the specific activities which are carried out in the delivery of any given service. Again, there are no short cuts.

Resources and Expenses

The Concise Oxford Dictionary defines "resource" as "means of supplying what is needed, stock that can be drawn on". Thus resources are used to provide services and in a service environment the resources can be many and varied. Resources can include property for housing of equipment and/or people, the equipment itself, people (also known as human resources), plant and machinery and non-tangible items such as application software, knowledge or information banks and many more. The resources needed to provide the defined services will vary according to the organisation, the organisation's customers and consumers, and the channels which the organisation has determined it will use in order to deliver its services to those customers and consumers. For example, an airline uses a specific type of resource - an aeroplane to provide its transportation services to its customers whereas a taxi-driver, who also provides transportation services uses a different resource - a motor vehicle.

Every resource which an organisation uses in the delivery of its services has an associated cost. This cost may be a simple one-time cost or it may be a complex cost made up of a number of contributory expenses occurring over defined periods of time. The temptation is to "lump" similar types of resources together and arrive at a cost for the "lump" as opposed to the component parts, for example all secretaries' costs are amalgamated together and known collectively as "secretarial services" costs. However this approach does not allow the manager to appreciate the contribution to any given service provided by each individual resource. Typically even similar resources have varying costs attached to them, unless they were all bought at the same time, cost exactly the same amount of money and have been depreciated over time in exactly the same way. For example not all secretaries in any one organisation (or even in any one office) are paid exactly the same salary - some have been with the company longer and have earned long-service increments, some have more or less qualifications and/or experience than others resulting in differences in remuneration. Thus whilst they may all perform similar services, the cost of service will be affected by the varying costs of resource.

A service organisation must be able to show how each resource (and thus the costs of each resource) used by them contributes towards the provision of one or more of the defined services. This may take some degree of analysis but the very process of linking resources to services provides significant benefits to both the organisation and the staff. The resource expenses are thus positively justified in terms of the services which they help to provide. Resources which cannot be linked to the provision of one or more services need to be carefully evaluated - are the resources actually needed, can more efficient use be made of them, can they be redeployed or should they be sold (this of course does not suggest that the organisation sell its "human resources"). Unfortunately many organisations hold onto resources (equipment, application software for which annual maintenance and licence fees are being paid, property, plant and machinery) long after their usefulness in the provision of services has passed.

Services Based Costing looks at resources and expenses together because some organisations have difficulties in determining the resources which they use or pay to have access to. An analysis of past actual spending and projected budgeted spending will provide valuable pointers to the resources which the organisation is paying for. And, regardless of how much an organisation is paying, if it is paying out good money for resources it needs to know that it is getting value for money. In a manufacturing

environment this value is often expressed in terms of "units produced", in a Services environment this value must be identified as contribution to services provided. If any expense cannot be justified in terms of the resources, and through the resources the service(s) which it is paying for then alarm bells should start to sound!

Many people may find it inconceivable that organisations should be incurring expenses for resources which provide little or no benefit to the business as a whole. However, experience has shown that detailed analysis of accounts will always find expenses which the accounts department really have little idea what they are for except in the most general of terms. In an ABC environment these would be lumped into an overhead cost allocation which inevitably skews the real value of the services. In Services Based Costing however there is a much more concise and open approach to expenses because they are all accounted for and qualified in terms of needed resources for the provision of services to achieve the organisation's objectives. For example, expenses incurred in staff training become much more focussed as managers use SBC to identify areas where improvements to, or maintenance of, knowledge and skill levels become critical to the provision of services.

Resources and expenses are also "typed" in that each resource or expense is allocated a "type" code before being further analysed. This provides a high level view of resource and expense types used in the provision of services and/or activities.

Time

Time is an important factor in Services Based Costing. Expenses are incurred to pay for resource availability (ie the holding cost) and those resources (especially the human ones) have a defined, and often limited availability in terms of hours. SBC is usually calculated using annual expense figures (often forward projected budget figures) where the annual expense will pay for a number of hours of resource availability. However, using its multi-dimensional capabilities SBC can be used to calculate hourly basis costs for any time period required. It is the combination of expenses, resources, the services and/or activities which are to be provided/performed captured within resource profiles, and time which provides the power of SBC.

The inclusion of time permits the performance of various calculations which allow a manager to see an hourly cost to provide services and/or activities. The manager can also examine the number of hours in total allocated by any resource to the provision of any given service and/or activity, the total amount of expense incurred for the provision of a given number of hours of any service and carry out resource leveling and scheduling for the most efficient and cost-effective use of resources.

Implementing Service Based Costing

Setting up a Services Based Costing system to the level of costing and managing activities within services is akin to setting up the chart of accounts in a large general ledger system - time-consuming but once in place a vital part of the daily management of the organisation. Once implemented Services Based Costing provides valuable management information, but its not something that can be done overnight, it can take weeks and even months to obtain the full benefits of SBC. Organisations should

proceed at the speed with which their staff can comfortably accommodate the changes in focus, necessary for a successful implementation.

Once SBC has been implemented however a wealth of management information is available, due to the multi-dimensional capabilities of SBC. The diagram below shows the inter-relationship of information.
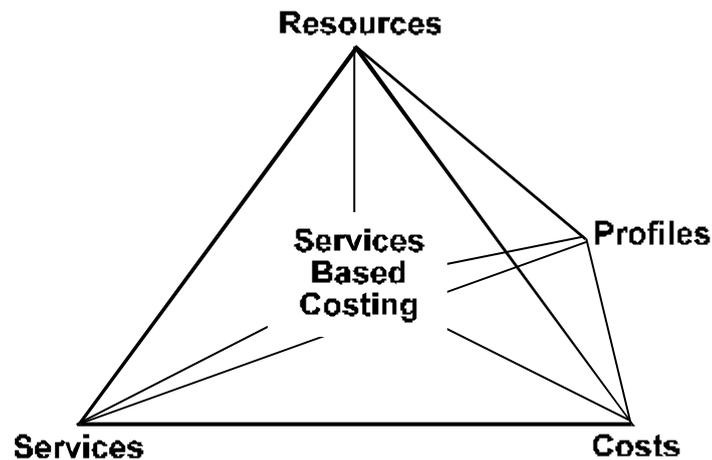

Figure 1. The Multi-Dimensional Capabilities of Services Based Costing

By relating any two sets of information e.g. resources-profiles, services-resources, costs-resources, management can gain a detailed insight into the services provided by their organisation and/or department. They can at last answer such questions as: " Which resources can provide a given activity or service?", "What is the true cost of my services and resources?", What resources does a particular service need?", and so forth.

SBC™ also provides the ability to take a multi-dimensional view of services, costs, activities, resources and profiles over a given period of time. For example, organisations can analyse the linking of resource expenses to the time spent by each resource in the provision of any given service and/or activity. Without the use of technology to facilitate it these multi-dimensional analyses would be far too time-consuming, requiring vast numbers of calculations. However, with the use of software specifically designed for SBC™, the computer can take care of the large numbers of calculations required to facilitate the detailed analyses which provide the true power behind SBC™. Automated analysis is then performed on the raw data producing a wealth of management information. The effects of changes to the raw data (resources, expenses, profiles, etc.) are easily handled by the software to rapidly produce amended figures and reports to facilitate "what if" analyses.

How this information is then used will depend to a very large extent on the individual organisation. Some organisations complete the "loop" by implementing time-recording systems which link back into the SBC™ system to provide monitoring facilities for actual resource usage and service provision. Others feed the output from the SBC™ system into specialised Service Level Agreement systems where

calculations are performed to arrive at a fair allocation of costs to customers (used to great effect by internal service departments whose services are more often than not paid for by corporate overhead allocation). However, regardless of how the SBC™ exercise is followed up, it is important to recognise that on-going monitoring and the application of what is known as Activity Based Management are vital ingredients to ensuring that Services are costed and managed effectively and efficiently over time. For service organisations Activity Based Management becomes a natural way of doing business as all management decisions, planning, budgeting etc are made based upon the services being provided and/or affected. This complete change in focus starts with determining the services, is strengthened by costing those services using SBC™ and is maintained by Activity Based Management - a process which is not possible without first having performed the first two.

Summary

Services Based Costing™ has proven essential in the implementation of cost-effective strategies for services-based organisations, and for manufacturing organisations who provide services as a part of their competitive differentiator. It is an essential pre-requisite for any organisation contemplating or needing to undertake:

- Cost-Effective Services
- Customer-Focused Services
- Business Process Reengineering
- Service Quality
- Service Level Agreements
- Outsourcing/ Facilities Management

and who don't want to be part of the estimated 70% who fail.

Services Based Costing™ enables the organisation to

- Align its services with the overall corporate goals and objectives
- Identify the true cost of each service and guarantee that each service can be delivered at high quality and cost-effectively
- Accurately and precisely target those services which can be outsourced
- Provide the organisation with essential information required to set up and maintain Service Level Agreements

Services Based Costing™ also helps relieve the anguish in every organisation caused by "corporate overhead allocations". It provides a complete and accurate justification for each service being provided under the corporate cost allocation umbrella, and show exactly what services each department will receive in return for their "allocation". In short Services Based Costing™ is a vital management tool which provides a highly productive, concise and cost-effective method for the identification, costing and management of all services, whether they are provided internally or externally.