Technology Cost Management 4D Framework: A Smarter Way to Manage IT Costs

An IT cost management framework can help financial services organizations address the need for automation, efficiency and transparency, and bring rigor and accountability to effectively allocating and managing IT costs.

Executive Summary

Managing the technology expenditures for large organizations with operations across multiple countries, and with a number of business lines, is a cumbersome, manual and data-intensive exercise.

Research¹ suggests that large financial institutions with operations in multiple countries, and across multiple service lines, spend an average of 7% to 8% of their revenues on IT. On an average across financial industry sectors, IT spend varies between 3% and 4% of revenues. Considering that some of these institutions have revenues running into the billions of dollars, IT costs can range between $500 million to $2 billion, depending on the size of operations. Effectively managing IT costs of this magnitude is a major challenge. The problem is compounded when IT budget growth rates wane, as in current times.

Research from Computer Economics² shows that IT spending has dropped as the aftereffects of the global financial industry crisis linger. After growing at a 5% clip in 2007 (up from 4.1% in 2006), the median IT operational budget growth rate dropped to 4% in 2008. The problem for IT managers is how to do more with less, which makes effective IT cost management an absolute imperative.

As they say, "What cannot be measured, cannot be controlled." Due to the complexity of IT services provided to the enterprise and internal business units, and the accounting challenges faced during recharge, identifying the right cost allocation model for end-to-end IT services costs has emerged as a key challenge by many financial services organizations.

To manage this magnitude of cost, complexity of operating structure and cost allocation models, large organizations centralize the functions of IT cost management as a group/shared-services function. These centralized business units control and manage the entire IT budget for the organization, starting with the allocation of IT budgets, capturing of actual IT expenses and, finally, the charge-back of these expenses to the incurring business units.
In today’s environment, the IT cost management function is typically a manual activity performed by shared services units using Excel spreadsheets, with little or no automation or IT system presence. The manual-intensive nature of these operations has resulted in numerous inefficiencies and process breakdowns, resulting in higher operating costs. Large organizations have realized this the hard way, thus underscoring the importance for automation to bring transparency and efficiency to the entire charge-back process.

To address the need for automation, efficiency and transparency in the process of IT cost management, organizations have begun to revamp the entire process and IT landscape of their shared services functions. This white paper discusses our point of view and highlights a proprietary “4D” framework for IT cost management (see Figure 1) to guide financial services organizations on a step-by-step approach toward mastering this challenge.

Define Business Vision
Any IT spending should be aligned with the strategic objectives of the organization. Business users should also have a sense of ownership and control over IT costs to effectively manage them. The perspectives of key business stakeholders such as the CFO, CEO and business unit managers should be paramount while planning IT consumption requirements.

Hence, it becomes essential that before any organization goes ahead and implements an IT cost management solution, the “business vision” must be defined – and then applied to guide and inform the entire strategy.

The business vision should help answer the following IT questions:

- **What should the IT organization’s engagement model be?**

  Should the IT organization be organized as a cost center or should it act as a strategic partner to the business? As more third-party and cloud solutions become available – including infrastructure, software, platform, business processes, sourced IT labor services, etc. – internal IT organizations are looking to demonstrate their own value by running the internal organization like a business, offering better or equally competitive service. This means the IT function is changing its focus from producing IT services to optimizing the production and consumption of those services in line with business requirements.

  To run IT as a service, business and IT need to collaborate and define the characteristics of an “IT service.” Its key characteristics include:

  > Addresses a defined business need.
  > Offers capabilities that are business aligned.
  > Provides functionalities that are billable to the business and priced based on the cost of the supporting IT products and projects.

- **What should the allocation model be?**

  As IT managers strive to convey the value of technology to the business, they need...
additional visibility to better understand the IT cost burden. This makes it important to have a flexible yet less complex cost allocation model. On one end, the cost allocation model can be as simple as dividing the entire cost evenly among business units. On the other hand, it can be a more complex model such as activity-based costing (ABC) which tracks IT transactions and uses activity metrics to distribute the shared costs. Therefore, much thought needs to go into the selection of an allocation model that is effective and equitable without accruing exorbitant administrative costs and accounting challenges involved in setting it up.

- **What role should business stakeholders play in managing IT costs?**

Business stakeholders need to collaborate with IT partners to clearly and crisply define the business drivers for not only managing IT costs, but also define the key business principles for an effective IT cost management solution.

Business drivers define the end business objective of managing IT costs and act as a guardrail while illuminating key success factors for measuring the success of an effective IT cost management function. Business drivers typically vary based on the industry sector. Key drivers include:

- **Improving efficiency:** The aim here is to derive greater value from the same cost base by identifying business areas that can be rationalized, removed or automated.

- **Increasing stakeholder worth:** The aim here is to prevent costs from faulty business cases that do not increase stakeholder value.

In addition to these business drivers, the business should also lay down the key principles on which any IT cost management solution architecture should be based. These principles highlight business expectations and act as the guiding factors for IT to deliver the required solution (see Figure 2).

Having defined the business vision and answered/addressed the constituent questions, the team will have a clear perspective on the foundations for defining the IT/business architecture for the IT cost management solution. The next step is to document the current state of the IT cost management function.

### Factors Underlying Key Business Drivers

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description and Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transparency</td>
<td>End-to-end view of data right from the incurring of a cost to the point where it is recharged back to the business. Historical view of data to help business in cost investigation and reporting. Audit trail to capture all important business transactions performed by users.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Faster processing and reduction of manual intervention. Workflow processing to manage communication among stakeholders.</td>
</tr>
<tr>
<td>Accuracy</td>
<td>System calculated values to ensure accuracy and integrity of business data. Well-defined validation rules to catch any exception due to data errors. Central repository of mapping and static data.</td>
</tr>
<tr>
<td>Agility and Adaptability</td>
<td>A benefit of reuse is the implementation and roll-out of the loosely coupled business services that can be composed and re-composed to meet new business needs. Increases business adaptability and offers ability to more quickly meet customer demands.</td>
</tr>
<tr>
<td>Data Integrity</td>
<td>A centralized repository of data offers a consistent view of data without latency.</td>
</tr>
<tr>
<td>Reusability</td>
<td>Easier alignment of IT with business processes.</td>
</tr>
<tr>
<td>Modularity</td>
<td>Increased organizational agility allows companies to easily assemble and modify business processes in response to market requirements. Reduced implementation costs by increasing reusability; services can easily be shared across multiple business groups. Enables the business to perform a process in-house or via a partner with minimal impact on the underlying IT portfolio.</td>
</tr>
<tr>
<td>Standardization</td>
<td>Facilitates organizational adaptivity to industry standards and reduces training requirements; increases labor pool availability.</td>
</tr>
</tbody>
</table>

Figure 2
Document Current State

Once the organization has put the business vision into perspective, the next step is to document the current state of the business process with the IT cost management function. The “current state” creates a snapshot that reflects the physical and logical environment as it exists and helps to identify the pain points and areas of potential automation.

While documenting the current state, the following key components should be captured:

- **Business capability model:** This includes a set of business processes required to help the business deliver value to users or to run the organization. Business capability is in the conceptual layer, encompassing business processes. The capability represents the “what,” whereas the process and people represent the “how.” Each business capability can be further divided to sub-capabilities which are then mapped to Level 1/Level 2 business processes.

  For example, in IT cost management terminology, business capability can be project costing, containing various sub-capabilities such as accruals, prepayments, etc.

- **Business process workflows:** While documenting business process work flows, it is important that the following components are captured for each process:
  
  > **Business processes:** A set of tasks or activities the business must perform to achieve its goals and objectives.
  
  > **Resources:** The people, organizations and/or system(s) required to complete each business task/activity. This should include details about suppliers and consumers of the business process.
  
  > **Data:** The information that is created, used by or updated as a result of a business task/activity.

  Process modeling can be achieved using various modeling tools such as unified modeling language (UML), suppliers input process output consumers (SIPOC), business process model and notation (BPMN), extended business modeling language (xBML), etc.

- **Business interaction diagrams:** These diagrams should represent the data flows among business users/entities within IT cost management functions.

- **System interaction diagrams:** These diagrams should represent the data flows among systems/tools within IT cost management functions.

- **Gaps and issues in the current state:** Identifying gaps in the current state is an important step, as it will act as an input while arriving at the target state business architecture, and also during the “build vs. buy” analysis. Gaps can be classified as process or system-related.

Delineate Target Business Architecture

Once the current state is documented and gaps are identified, the next step is to define the business architecture, detailing the functional modules that together form the crux of the IT cost management framework.

It is imperative that the business architecture is in sync with the design principles enumerated in the business vision (as the above section describes). These principles are the guiding light for the development of the architecture and entities within. Any evolution or modification of this architecture must ensure that these principles are not violated.

An IT cost management solution should have the following features:

- **Rules driven:** This is mandatory for all transactional events within the cost management application. These can be allocation rules, recharge rules or validation rules.

- **Easy interfacing:** The IT solution should be able to interface with most standard financial/general ledger systems used within the industry. This means less customization and reduces efforts spent on complex mappings between systems.

- **Extensibility and scalability:** The IT solution should be flexible enough to include new business functions and robust enough to handle an increased volume of data and users.

Figure 3 illustrates a generic business architecture, highlighting the functional modules and business layers that should underlie any IT cost management solution. The same can be customized per the business need of any organization. Figure 4 details some of the important modules.

Once the business architecture is fully understood, the next objective is to highlight build vs. buy...
An Illustrative Business Architecture

![Diagram of Business Architecture]

**Figure 3**

**A Modular View**

<table>
<thead>
<tr>
<th>Module Name</th>
<th>Functionality</th>
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<tbody>
<tr>
<td>Static Data Management</td>
<td>This module acts as a single window for all static data required for IT cost management, such as currency, country, BU hierarchy, etc.</td>
</tr>
<tr>
<td>Reference Data Management</td>
<td>This module helps to maintain all reference data required for cost allocation, recharge and reporting. It enables upload/capture, display and editing of reference data such as cost center list, cost categories, technology domains, basis of allocations, etc.</td>
</tr>
<tr>
<td>Budgeting Module</td>
<td>This module enables the technology finance team to arrive at an IT budget for each year after factoring in efficiency increases, FX impact and salary increases.</td>
</tr>
<tr>
<td>Forecasting Module</td>
<td>This module helps the IT cost management function as well as IT project managers to capture multiyear cost forecasts for projects and also assists with the automatic accrual of costs based on forecasts.</td>
</tr>
<tr>
<td>Cost Capture Module</td>
<td>This module helps to capture man-day as well as non-man-day costs across development and infrastructure projects.</td>
</tr>
<tr>
<td>Project Accounting Module</td>
<td>This module helps in all project accounting activities such as generating journal entries for accruals, prepayments and reclassifications of costs.</td>
</tr>
<tr>
<td>IT Service Catalogue</td>
<td>This module allows business users to browse and view any IT service, applicable cost basis and cost per unit. It also helps the user to select the required services and acts as an input to the charge-back.</td>
</tr>
<tr>
<td>Rules Configuration</td>
<td>This module helps in the creation and maintenance of allocation rules as well as other application rules for each module.</td>
</tr>
<tr>
<td>Workflow Management</td>
<td>This module enables interaction among stakeholders through e-mails and automates the review and approval process.</td>
</tr>
<tr>
<td>Reporting</td>
<td>This module helps the IT cost management function to generate user-defined as well as generic reports for business users as well as internal consumption.</td>
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</tbody>
</table>

**Figure 4**
considerations for implementing the IT cost management solution. IT organizations must create business scenarios for each approach, including the pros and cons of each option.

**Decide: Build vs. Buy**

After laying the foundation, it’s now time to answer a very important question: Should the solution be custom built, be based on a COTS product or should a hybrid approach be considered? Answering this question requires much brainstorming and research. Stakeholders need to understand the strategic goals, underlying business processes and support requirements. The sizeable number of COTS products available for managing IT cost management doesn’t make it any easier, either. No matter which approach is selected, each approach has its pluses and minuses (see Figure 5).

**Moving Forward**

In many financial services organizations, there is a pressing need to create equitable and easy-to-manage IT service cost allocation models to charge back costs to the business units consuming IT services. In many of these organizations, the tools and technologies used to manage technology costs are not mature enough to evolve with the changing requirements of a more discerning business user base. The ongoing global financial crisis has tempered revenue growth, and will put further pressure on organizations to cut costs, including IT spending.

Considering the changed environment, businesses worldwide are collaborating with IT to conduct business smarter and to deliver the same or better service to users at a reduced cost. This will keep effective IT cost management in the spotlight for the foreseeable future, making it imperative for IT organizations to deliver structured IT cost management solutions that remain in sync with fundamental business principles and that are capable enough to provide:

- Catalogued IT services, with the cost of each IT service.
- Centralized cost-related data at the required granularity.
- Robust charge-back models based on actual consumption for all costs pertaining to people, hardware and software dimensions.
- Robust workflow and reporting capabilities.

The major benefits to be realized with the implementation of such an IT cost management solution include:

- Transparency and data integrity.
- Straight-through processing.
- Reduced manual intervention.
- Standardization and agility and adaptability to changes.

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**Figure 5**

<table>
<thead>
<tr>
<th>Build vs. Buy Decision Matrix</th>
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<tbody>
<tr>
<td><strong>Pros</strong></td>
</tr>
<tr>
<td>Customer Build</td>
</tr>
<tr>
<td>Aligns with the business in terms of flexibility and design (functionality and process flows.)</td>
</tr>
<tr>
<td>Cost of product installation and maintenance. Time-to-production. High degree of standardization.</td>
</tr>
<tr>
<td>Standardize core processes while retaining flexibility in line with organizational needs.</td>
</tr>
</tbody>
</table>
Footnotes


3 Use best-of-breed off-the-shelf products for specific functionality while tying them together via custom build interfaces.

References


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