IT Spend and Performance: Achieving Visibility and Transparency

A White Paper
Mark D. Lutchen
Squeezing the “Magic Orange”
Stephen Norman, the CIO of Merrill Lynch, likes to relate the following story:

On a clear December day, a worried-looking CFO knocked on the door of his harried CIO and said, “Times are tough. We need to squeeze 10% out of the IT budget.” With some effort and with more than a little help from Moore’s law,¹ the CIO managed to squeeze out 10% of costs without causing any appreciable loss in service quality. The following year, his CFO returned to say, “That was terrific. However, this year we need to squeeze out another 10%.” Dutifully, with some hard-nosed decision-making, the CIO managed to find an additional 10%. However, at the end of the year, the CFO once again said, “Now we need an additional 10%. And, what’s more, you can guess what I’ll be asking for next year.” The CIO took a deep breath. It was getting really difficult to squeeze out more savings. He wondered how often he could wring the same orange and still continue to get drinkable juice. To the CFO, the IT department was a “Magic Orange” that could be squeezed indefinitely.²

Is IT really a magic orange? Can CIOs realistically be expected continuously and relentlessly to reduce costs while still maintaining a technology infrastructure that meets the expanding needs of its users? When put that way, of course, the answer is no. However, this is not to say that most, if not all, IT organizations can and should be run with greater efficiency, particularly in light of the fact that IT is consistently one of the top expenditures among leading organizations. Today, however, that investment must pay off. As Hewlett-Packard’s Carleton S. (Carly) Fiorina recently noted, “CEOs will spend money on information technology only to raise [return on investment]….³

The question, then, is not can IT costs be reduced and performance increased, but how can this be accomplished? The answer lies in how IT is managed. At most organizations, IT is considered a necessary and costly evil. Little thought is given to IT as a strategic business driver that is key to the company’s survival, and, as a result, most CIOs, for a variety of reasons, occupy a lower stature than their C-level colleagues.

But there is hope. Organizations that manage their IT functions as a business, that is, as a mainstream component of the enterprise that advances corporate goals and profits, that is subject to rigorous measurement, and that is held accountable for the achievements of specific goals and objectives are discovering that technology can fulfill its promise.

While there are many components involved in managing IT as a business, one key aspect is achieving a clear understanding of what IT really costs and what IT actually delivers. For if IT spend and performance are not truly visible and transparent, the benefits of technology can never be fully achieved.

¹ The notion, first expressed by Gordon Moore, cofounder of Intel, states that the amount of information that can be stored on a given quantity of silicon doubles each year.
How Is IT Perceived in Your Company?
— A Necessary Evil?
— A Cost to be Cut?
— A Strategic Enabler?
— A Driver of Shareholder Value?

Sources of IT Risk
Information Technology ranks highly among most companies’ top expenditures. In the late 1990s, some of the largest global companies were spending up to $1 billion each year to address such IT issues as Y2K, the conversion of European national currencies to the Euro, e-business initiatives, and Enterprise Resource Planning (ERP) systems, or just to maintain day-to-day IT operations. However, with the collapse of the technology boom in 2000, the IT “gravy train” abruptly came to a halt. The resulting contraction in capital spending disproportionately affected spending on IT, placing many of these same companies behind the information technology curve.

“Gartner, Inc. predicts that through 2007, 65% of enterprises will grossly mismanage complexity and risk, stifling productivity and earnings, and inflating costs by at least 25%.”

While the bursting of the technology “balloon” might have been a powerful and highly visible catalyst that exposed the risks associated with IT spending, that event masks a number of deeper, more fundamental problems that have always existed, regardless of the prevailing economic climate. In many companies, IT historically has been one of the least understood expenditures and one of the most mismanaged aspects of the business. On average, 10%-25% of total IT spend has been wasted, and forecasts for the future are grim: For example, “Gartner, Inc. predicts that through 2007, 65% of enterprises will grossly mismanage complexity and risk, stifling productivity and earnings, and inflating costs by at least 25%.”

Lack of understanding and mismanagement are the overarching risks associated with IT spending. However, these arise from others that, while subordinate, are nonetheless significant. They include:

— A chronic disconnect among IT organizations, systems, and technology.
— A failure to link these to a company’s strategic business drivers.
— A lack of top-level support for CIOs, resulting in their inability to acquire the skills needed to participate at the highest levels of executive management.
— A belief that IT is virtually impossible to measure and that only hard-core technical operations and discrete projects lend themselves to any sort of quantitative performance measurement.

The effects of these risks are profound and far reaching. For example, they lead to the perception that IT is a support function and a cost center, rather than a key driver of business success; that IT organizations are expensive and ripe for cost cutting; and that CIOs are less than key people and that they really don’t need to know how the business works or what obstacles are preventing the business from improving.

But the greatest risk is this: Those companies that will take and apply a broader view of IT will place those that do not at a serious competitive disadvantage.

The result of such perceptions is that corporate IT spending is often haphazard; IT strategy is not linked closely with business strategy; and IT projects, rather than being continuous and driving forward to capture the advantages of new technologies, often become captive to business cycles.

Clearly, these attitudes and practices must change. If this narrow view of IT isn’t sufficiently broadened, if the management of IT isn’t sufficiently professionalized, and if users do not learn how to appropriately “price” IT against other corporate needs, companies will lose the opportunity to take advantage of proven and emerging technologies that can enhance their businesses’ portfolios and revenues. But the greatest risk is this: Those companies that will take and apply a broader view of IT will place those that do not at a serious competitive disadvantage.

Getting a Handle on IT Spend and Performance

All of these risks can be significantly mitigated—even totally eliminated—by achieving a clear understanding of IT spend and performance. If that is to happen, IT must be linked to the goals and objectives of the business; those responsible for IT spend must be accountable for their decisions; responsibility for the key spend drivers must be assigned; and results must be measured, verified, and continuously reported. In turn, these fundamental principles serve as the foundation with regard to three key focus areas: people, priorities, and performance: People must be managed, priorities set, and performance monitored.

If IT spending is to be brought under control and result in maximum benefit, the CIO must gain a clear understanding of the company’s actual IT asset base and of who is spending what and why.

In many large, complex companies, much of the spending on IT occurs outside of the IT organization, in the business units, for example, or in the manufacturing plants and marketing departments, or even in facilities and corporate real estate. Obviously, this is not the most efficient way to allocate scarce resources. If IT spending is to be brought under control and result in maximum benefit, the CIO must gain a clear understanding of the company’s actual IT asset base and of who is spending what and why.

Once that has been accomplished, the CIO can work with other executives and business-unit leaders to assign roles and justify decisions; to develop reasonable corporate technology standards; to determine where corporate-level procurement can save money for functional departments and business units; to establish balanced IT strategies, solutions, and execution; to develop a true service-oriented relationship between the IT organization and its various constituencies; and to identify and communicate measurable outcomes that indicate IT organizational success.
To achieve these objectives, the process of evaluating IT expenditures must encompass total IT spend across the organization, rather than just “point-in time” spend within the IT function. In addition, business-unit leaders need to approach the IT budgeting process with a value-for-money mindset that evolves from a thorough understanding of the direct correlation between IT spend and service levels and of their ownership of key drivers that empowers them to impact service levels and costs positively.

Finally, a ruthless prioritization effort should be undertaken to bring IT spending to a zero base whereby all expenditures must be justified, not just those in excess of the previous budget. As part of that prioritization, IT funds should be rationalized and, as appropriate, diverted from maintaining legacy infrastructure and systems to investing in new “foundation” technologies and strategic initiatives.

Accomplishing these goals will not be easy. It will require that IT leadership possess the management and cost accounting skills necessary to execute the IT budgeting and spend analysis processes.

Understanding the Real IT Spend: Service Models

To understand where the IT dollars are actually going, standardized spend categories are required. These might include the following:

- IT operations and management base costs (shared utility).
- Business unit-driven IT costs (variable).
- Business unit-independent IT initiatives (specific to the business unit).
- Corporatewide initiatives (on behalf of the entire company).
- Emerging technologies (on behalf of the entire company).

Also helpful in achieving a true understanding of IT spend is the application of reliable and time-tested service/spend models within the IT environment. Figure 1 illustrates a combination of two such models—Class of Use/Service and Speed/Availability of Service. Such a combination can produce powerful results and favorably impact IT spend.

<table>
<thead>
<tr>
<th>Class of Use/Service</th>
<th>Speed/Availability of Service</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic/Standard/Commodity</td>
<td>Lowest Cost</td>
</tr>
<tr>
<td>Basic/Standard/Commodity +</td>
<td></td>
</tr>
<tr>
<td>Business - Unit Premium Special</td>
<td></td>
</tr>
<tr>
<td>Business - Unit Premium Unique/Custom</td>
<td>Higher Cost</td>
</tr>
</tbody>
</table>

*Figure 1 IT/Spend Budget Drivers*
Class of Use/Service is generally driven by the complexity or volume of the use/service required. In the interest of simplicity and transparency, a company should limit the number of classes. Doing so helps drive standardization and increase cost efficiency and economies of scale. Another component of the service-spend equation is speed and availability: How quickly must the service be delivered? How universal must the availability be?

Business units that can live with standard service levels at normal speeds—for example, a mature business unit with well-developed processes and little change in its business model over time—pay the least per unit of volume or per head. Other business units, which require highly customized or unique types of service and very fast delivery of these services at any time—for example, a fast-growing business unit with a highly mobile workforce—pay the most per unit of volume or per head. For these business units, revenues must fully support their needs or, to cover their costs, they will be forced to find increased investment funds or to obtain a corporate subsidy.

Such an approach allows all business units and corporate departments to share in basic, standard, commodity-type services at the same unit cost, the driver being either the number of users or the volume of use by class of use or service. Business units or departments requiring higher levels of more specialized services and/or a faster speed or greater availability can identify the premium services they want and buy them from the IT organization “by the pound” in increments above the standard services.

The process described here follows a value for money model; everyone can see and control what they receive and how it is delivered. This increases each business unit’s feeling of trust and control over its IT destiny. Constructing the IT budget and measurement process around this model creates a win-win scenario across the board. The foundation for achieving the win-win is a carefully and responsibly crafted Service Level Agreement (SLA) that forces all parties to sign on the dotted line and to be accountable to one another.

Understanding the Real IT Spend: Approaches to Spend Transformation

As noted earlier, part of the “ruthless prioritization” process necessary to shift IT spending to a zero base involves diverting money from maintaining a high-cost legacy infrastructure to categories of spend that drive and support necessary changes for the future. Figure 2 illustrates how, over a period of 18 months, an actual company reduced the amount of money it was spending on legacy maintenance from 95% to 50%, freeing up—not adding—funds to invest in new foundation and strategic initiatives. The company accomplished this objective by spending wisely, not more.

Figure 2 Transformation of IT Spend
Case Study: Controlling Costs through Careful Analysis

A new CIO was appointed for a multinational company with disparate business units. Some of these units were recently acquired, and others were targeted to be sold. Because he came from within the company, the CIO understood how it had operated in the past and how it hoped to operate in the future. He believed that recent acquisitions offered opportunities for synergies and cost reductions, but he did not know how to get a handle on IT costs. These were spread across multiple business units in multiple locations. Some resided in operations on two continents.

To make progress toward achieving any cost reductions, he needed first to understand the current IT asset base and where money was being spent. He sought assistance to help him focus on the current desktop environment (e.g., PCs, services, networks, support/help desk, and break/fix maintenance), which supported many thousands of users in corporate headquarters and in local business-unit locations.

Data was collected about the current desktop environment, focusing on current support and service costs (labor) and procurement and maintenance costs for hardware and software, including PCs and related server and network components. Data was evaluated in the context of the company’s operations and measured against industry norms. It was discovered that a number of factors were driving higher than expected costs. These included:

- A high number of premium users who made frequent calls for support.
- A higher than warranted level of service for those premium users.
- The need to dispatch deskside technical staff for a large number of relatively low-level support requests as well as more complex requests.
- An inability to set and follow established, standard, predefined, and agreed-on criteria for prioritizing and providing desktop service requests.

The outside advisor who helped with the analysis recommended a five-point improvement program to address the current deficiencies and achieve a future vision for more effective desktop support. He also made project recommendations and established a schedule for implementation. The plan showed cost savings within three months.
Achieving Visibility and Transparency
The benefits and strategies discussed thus far are predicated upon the notion that visibility and transparency with regard to IT spend and performance are achievable. While many components are involved in assuring the visibility and transparency of IT spend and performance, most fall within an area bounded by the fundamental principles and key focus areas mentioned earlier and managing and prioritizing the IT investment portfolio.

Managing and Prioritizing the IT Investment Portfolio
Determining which IT projects to pursue is a key aspect of the CIO’s role, and, as a result, such decisions should be subject to a rigorous prioritization process. As Figure 3 illustrates, like any other business/risk portfolio exercise performed every day by executives evaluating all types of business investments and expenditures, decisions regarding IT expenditures should be guided by their strategic value (how well they advance overall business strategy) and financial attractiveness (the extent to which they provide value for money).

Figure 3 IT Objective Attractiveness Matrix
Those who are responsible for IT strategy should also bear in mind that successful IT strategy development is not a static, point-in-time process. Rather, if executed properly, it is a continuous, dynamic process that is linked to business strategy and affected by internal company and external market forces. In addition, in order to create successful IT strategies, CIOs and other IT professionals need first to “walk in the shoes” of the company’s non-IT constituents to understand their needs more effectively. Those needs should then be addressed in non-technical business terminology.

Subsequent to these overarching issues, the process should then focus on total IT spend—including baseline recurring spend, spend with regard to on-time initiatives, and spend both within IT and within the business units; qualitative and quantitative benefits; and key business
risks. In addition, each spend item should be linked to one of three needs: advancing or addressing business strategy, tactical problems or issues, or recurring needs. Finally, “ruthless prioritization” should be applied, where appropriate.

**Leveraging Investment Cycles and the Power of Standardization**

Even in organizations that prioritize IT investments in accordance with the guidelines described above, many IT leaders operate in a capital expense environment in which they are constantly working up an economic justification for each expenditure. This cuts into the time they have for understanding how the IT strategy meshes with the business strategy and for effectively managing the IT organization. To move to a normal cost model of IT expenditures, IT costs, in a business planning sense, need to be removed from the capital expense ledger.

**Bridging Investment Cycles**

Removing IT spending from the vagaries of the business cycle normalizes the rate at which cost increases occur, that is, the upward and downward spikes of annual expenditures that occur when IT is considered a capital expense, and the cost of work that goes into the implementation of any IT asset. The objective is to make IT spend as stable and efficient as possible by:

- Eliminating start/stop investment cycles that create an inability to maintain a steady state and to normalize IT spend over time.
- Focusing on total IT spend over time versus specific spend at a point in time, i.e., understanding the full downstream impact of all current actions.

As Figure 4 illustrates, a capital expenditure model involves start/stop spending and creates wide fluctuations and unpredictability:

![Figure 4 Capital Expenditure Model](image-url)
In contrast, an annual expense model (Figure 5), characterized by regular replacement spending, increases predictability and certainty of spend and smooths out wide variability and fluctuations:

Leveraging Standardization

The virtues of standardization are intuitive. And when they are synthesized, they lead to two consequences: reduced costs per unit of activity and reduced aggregate costs associated with the standardized item over a specified period of time. This means that the same amount of work can be done for less (if the company is in a cost-cutting mode), or that more work can be done for the same cost (if the company is in a growth mode). It also means that the reductions achieved can be both sustainable and consistent over a given period of time.

The objective is to make IT spend as stable and efficient as possible.

Three Stages of Standardization

Typically, the IT standardization process involves three stages: foundation, consolidation, and leverage. Foundation technology is that which establishes the basic and common infrastructure on which a company can cost-effectively run its systems, process its data, and communicate internally and externally. It is, in other words, the “plumbing” of the company’s technology. When executed well, the standardization of foundation technology will deliver many of a company’s total standardization benefits, including as much as 60% of its potential cost savings and 30% of its potential service improvements.

Consolidation involves the integration of all activities and efforts surrounding such foundation technology “blocks” as PC standardization, infrastructure standardization, and services standardization. As the individual component aspects and benefits of each foundation block are brought together, the groundwork is laid for achieving even greater efficiencies and economies.
After the consolidation stage is completed and all of the components are working together as they should, high-impact benefits begin to kick in. This occurs in the leverage stage. As all of the blocks come together, key processes related to each other become more and more integrated, efficient, and cost effective.

**Key Components of Standardization**

To move to a fully standardized IT environment, a company needs to understand the relevance of standardization to three key components: technology support, information enhancement, and strategic enabling.

Typically, the technology support component demonstrates the most commonality and usually elicits the least resistance to standardization. Within the information enhancement component, across-the-board standardization is made more difficult by the unique needs of individual business units. Standardization is hardest to pursue where strategic enabling technology is involved. Although it can be accomplished to some degree, the standards within this component usually are not clear from the start and, therefore, must be evolved over time.

The following graphic illustration of these components (Figure 6) suggests how it is possible to achieve various benefits at different stages.

**Benefits of Standardization**

The benefits of standardization are already well documented in a variety of industries. With regard to IT, standardization helps the IT organization—and the company—to insulate itself against the chaos caused by the constant change of market forces and by the rapid pace of technological change. Maximum practical standardization creates a “plug and play” environment in which adjustments can be made most easily and cost effectively.
Standardization also provides the IT organization and the company with a strong foundation that cost-effectively encourages and enables the continuous and rapid absorption of change. It also reduces the cost of quality, enhances the IT organization’s effectiveness, and increases the speed with which new technologies can be deployed, without impinging on the prerogatives of business-unit leadership.

**IT Metrics: What Executives Need to Know**

Transparency and visibility are all about value and performance. But measuring IT performance and its overall value to the business is, at best, a difficult process. Typically, IT metrics have focused on operational, technical, and transactional components (such as “uptime” programming productivity or help-desk transactions) and on whether projects are moving forward on time and within budget.

Unfortunately, these “shop-floor” type metrics do not by themselves get to the heart of what the executive team needs to know about the IT organization. In fact, because such metrics often look good on paper, they actually may be masking problems. To achieve consistently high performance and value, executives need to be able to measure how effectively the IT organization is positioning itself to be used by its constituents as a driver of business value. Metrics to accomplish this need to be performance based and improvement oriented. They must help to identify root causes and to drive specific actions and behaviors within the IT organization and between IT and the business units.

To achieve consistently high performance and value, executives need to be able to measure how effectively the IT organization is positioning itself to be used by its constituents as a driver of business value.

Fundamental Principles

Successfully measuring IT performance and overall value to the business involves a number of fundamental principles. They include:

- Ensuring that, in addition to operational IT metrics, focus is placed on relevant IT management and control and IT business value metrics.
- Placing particular emphasis on the importance of IT business value metrics to ensure that a meaningful dialogue is established between the CIO and other executives and that this dialogue is constructive. Metrics should not be used solely in a punitive manner. Their greater purpose is to achieve improvements.
- Applying an integrated approach to IT metrics so that the CIO is constantly aware of management’s priorities.
- Establishing at all levels appropriate ownership of IT metrics and ensuring that they are transparent and fully communicated across the company on an ongoing basis.
- Focusing on creating and maintaining a culture of accountability and performance within the IT organization.

In addition, if IT metrics are to have maximum effectiveness, their usefulness must extend beyond the IT organization. Figure 7 illustrates the linkage among the three types of IT metrics—operational, management and control, and IT business value—and how they can be used to serve the different needs of a variety of constituencies throughout the company.
Managing IT as a Business

The approach taken in this paper to the topic of visibility and transparency as these pertain to IT spend and performance is based on a larger conceptual framework which advances the idea that if technology is to fulfill its promise and provide maximum benefit to a corporation, it must be managed in the same way as any large business unit, that is, in a professional manner, with careful attention to people, priorities, and performance, and with an integrated series of proven and tested fiscal and managerial disciplines.

If this is to be accomplished, the relationship between IT users and the IT organization must change. IT users must understand that a company’s ability to provide IT is not unlimited. Like every other aspect of a business, IT is bound by rules of supply, demand, and cost. Only when users of IT throughout the company are made to “pay” for it will they learn to use IT carefully and purposefully.

Additionally, IT leaders will need to evolve. Technical expertise is no longer sufficient. Tomorrow’s IT leaders will need to acquire the well-developed, finely honed business management, leadership, organizational, political, and communications skills necessary to manage large, complex organizations effectively. They must also be able to provide direct, substantive, and easy-to-understand assistance, guidance, and advice to top corporate executives who must leverage IT in order to drive the enterprise to new heights.

Accomplishing these objectives will not be easy, but it is imperative that these changes take place. If they do not, the maximum potential of what technology has to offer can never be fully realized.
Mark D. Lutchen is the former Global CIO of PricewaterhouseCoopers. In that role, he was responsible for re-engineering, reconstructing, and integrating the firm’s worldwide IT systems during its massive late ’90s merger. With nearly three decades of operating experience, Mark has advised numerous Fortune 500 companies and executives on IT management. He currently leads PwC’s IT Business Risk Management Initiative, which provides senior executives with practical strategies to manage IT risks and optimize IT investment and resources.


For more information, please visit www.pwc.com/itbrm or call +1 (800) 639-7576.