The Business of IT

How to Improve Service and Lower Costs

Robert Ryan and Tim Raducha-Grace

IBM Press Program Managers: Steven M. Stansel, Ellice Uffer
Cover design: IBM Corporation

Associate Publisher: Greg Wiegand
Marketing Manager: Kourtnaye Sturgeon
Acquisitions Editor: Katherine Bull
Publicist: Heather Fox
Development Editor: Ginny Bess Munroe
Managing Editor: Kristy Hart
Designer: Alan Clements
Project Editors: Jovana San Nicolas-Shirley and Julie Anderson
Copy Editor: Keith Cline
Indexer: Lisa Stumpf
Compositor: Jake McFarland
Proofreader: Williams Woods Publishing Services
Manufacturing Buyer: Dan Uhrig
Published by Pearson plc
Publishing as IBM Press

IBM Press offers excellent discounts on this book when ordered in quantity for bulk purchases or special sales, which may include electronic versions and/or custom covers and content particular to your business, training goals, marketing focus, and branding interests. For more information, please contact

U. S. Corporate and Government Sales
1-800-382-3419
corpsales@pearsontechgroup.com.

For sales outside the U. S., please contact

International Sales
international@pearson.com.

Library of Congress Cataloging-in-Publication Data
Ryan, Robert.
The business of IT : how to improve service and lower costs / Robert Ryan and Tim Raducha-Grace.
p. cm.
ISBN 978-0-13-700061-6 (pbk. : alk. paper) 1. High technology industries—Management. 2. Success in business. I. Raducha-Grace, Tim. II. Title.
HD62.37.R928 2009
004.068—dc22
2009020220

ISBN-13: 978-0-13-700061-6
ISBN-10: 0-13-700061-8
Text printed in the United States on recycled paper at R.R. Donnelley in Crawfordsville, Indiana.
First printing September 2009

Preface

The Information Technology (IT) industry has undergone an amazing transformation from the introduction of mainframe computers to the current networked, high-speed IT environment. Technology has provided, and continues to provide, tremendous innovation that has enabled breakthrough changes in multiple industries over the past 30 years. However, while IT has evolved to a high level of technological maturity, IT organizations have been slower to adopt business practices, such as customer-aligned organizational designs, standardized business processes, systemic financial management, meaningful performance measures, and effective and continuous improvement initiatives.

A cause of this lack of business focus is that most resources in IT organizations are devoted to maintaining a technical environment, without sufficient customer or business focus. A number of recent industry studies, and our interviews with chief information officers (CIOs), indicate that a majority of IT resources go to maintaining existing IT infrastructure, and only a small portion of IT resources are committed to improving business practices and developing new IT services that align with the customer. Our work with a number of clients also indicates a focus for IT organizations on maintaining the existing infrastructure and a lack of focus on new, emerging technologies and solutions for their customers.

This book provides a practical guide on how IT organizations can filter through the vast array of competing alternatives to adopt, mature, and institutionalize standard business practices in their daily operations. Through these business practices, organizations can move to a greater focus on the customer while maintaining an effective IT infrastructure.

These practices enable a higher quality of service at lower costs. Implementation of standard business practices also helps reduce the frustrations of the customer, the operational and business units, and the IT organization. The application of standards results in realistic expectations for IT products and services. This book helps both internal customers and IT organizations understand the challenges the other group faces by showing how those groups can work together in a collaborative, effective model to enable the desired outcomes needed to achieve strategic goals.

We recognize the challenge of developing a practical guide that can help IT organizations more rigorously adopt standard business practices. We acknowledge that government, business, and nonprofit organizations come in a vast array of sizes, shapes, missions, values, and geographic alignments that impact how each individual organization will adopt standardized business practices. To address this challenge, this book culls lessons learned from management efforts across a number of organizations to help you achieve four primary goals:

- Apply business practices in IT organizations to optimize an IT budget and improve return on investment (ROI) from IT spending
- Improve customer satisfaction in operational and business units with the IT products and services available and provided to them
- Address the frustrations of IT organizations that result from numerous customer requests that are often outside of the scope of standard IT products and services
- Create more realistic expectations in the operational and business units in order to answer the following:
  - What IT products and services can be provided?
  - How are IT products and services priced and charged?
  - What are the expected performance levels?
  - What are the timelines and budgets?

With these goals in mind, this book is written primarily for three groups:

- The IT executives and managers in government, business, and nonprofit organizations who provide IT products and services to the operational and business units within their organizations

- The operational, or business, unit executives and managers in government, business, and nonprofit organizations who need quality IT products and services to run their operations, and primarily rely on their organization's internal IT organization to obtain these products and services
- Senior executives and board of directors in government, business, and nonprofit organizations who need an IT operation that enables operational and business units to work together to execute the strategy of the organization

IT organizations have been perceived as being focused on technology development and evolution, rather than being aligned to the business or operational units that they support. Although this perception may be unfair, IT organizations must continue to develop in their staff, from the CIO to the help desk employee, a full set of business skills. Culture is one of the hardest elements of an IT organization to change, and this type of change requires a committed, supported change management framework to be successful and sustainable.

This book is divided into nine chapters. It begins with the areas receiving the greatest current focus—best practice process frameworks, ITIL® adoptions, financial management, improved use of business cases—and then covers topics that will become focus areas in the future, including IT performance management and IT organizational alignment to their business users.

Chapter 1: Introduction: Improving Service and Lowering Costs IT organizations today must provide high-quality innovative products and services, maintain the existing IT infrastructure, *and* lower costs. This chapter introduces the four specific areas of business practices that can help organizations achieve this goal—defining IT services, managing their cost and value, and measuring their performance with a goal of improving service and lowering cost. Through these business practices, IT organizations can transform from cost centers that focus their resources on maintaining existing infrastructure to business partners that contribute to the organization's mission by aligning their investments in IT services.

Chapter 2: IT Service Lifecycle: Improving Business Performance The IT industry seeks to improve service while lowering costs. To do so,

many IT organizations have adopted industry-accepted best practice frameworks to improve performance using IT service management (ITSM), including ITIL, the de facto ITSM best practice. Although improving business practices is important through the IT service lifecycle, this chapter focuses on identifying a number of specific ITIL practices, specifically elements of Service Strategy, Service Design, and Continual Service Improvement, which are critical to business management. We focus on these components of ITIL because they have the strongest ties to business discipline as opposed to technological enhancements or refinement within Service Transition and Service Operation.

Chapter 3: Adopting IT Service Management Using ITIL Many IT organizations struggle with how to adopt all, or a part, of the ITIL framework. This chapter provides a planned and systematic change management approach to implementing ITIL based on real-world experience.

Chapter 4: IT Financial Management: The Business of IT Financial management of IT resources is vital to improving service while lowering costs. As this chapter explains, IT financial management includes overseeing and assessing the efficacy of current IT expenditures and planning for future investments based on the services your IT organization provides. After reviewing the foundational financial management activities of budgeting, accounting, and charging, this chapter then discusses some of the more advanced—and effective—financial management activities to improve service and lower costs.

Chapter 5: IT Business Cases: Realizing IT Value IT organizations must determine whether investments in IT projects/services are paying off. If they are, these projects/services will clearly support the overall strategy and mission of the organization and be aligned with its services. IT organizations should use a standardized business case to determine the overall benefit of investments. A business case is a rigorous, standardized method to capture the benefits, costs, and risks associated with IT investments.

Chapter 6: IT Performance Management: Defining Success More and more IT organizations are developing performance management frameworks. However, not all those frameworks align IT performance measurements to organizational strategy and related metrics. This chapter explains what performance management is and why it should be a critical, ongoing activity for your IT organization.

Chapter 7: IT Business Skills: Enabling Customer Outcomes Effective IT business skills are critical to helping an organization achieve its goals and maximize the return from IT investments. This

chapter explains how IT business skills contribute to these goals. The chapter then discusses how you can determine whether your IT organization has these required business skills. Then, the chapter covers how to address any gaps that may exist in your existing business skill sets.

Chapter 8: Success Stories: Improving Service and Lowering Costs IT organizations exist in a wide array of sizes, shapes, and focus areas. Several IT organizations, across the commercial, government, and nonprofit sectors, are successfully executing a number of the concepts in this book to improve their services while lowering costs. This chapter shares a few of these success stories.

Chapter 9: Going Forward Executing the concepts presented in this book will result in improved service and lower costs for your IT organization. Business discipline infused into IT organizations will result in IT organizations being able to move from the current daily focus of maintaining current applications and infrastructure to high-value activities. As your IT organization continues to evolve, it will drive top-line revenue growth, look forward and implement emerging technology, and better align IT operations to your organization's overall strategy and mission.

6

IT Performance Management: Defining Success

This chapter provides you with an understanding of performance management and why it should be a critical, ongoing activity for your IT organization. We discuss several common industry approaches to the measurement of organizational performance, with a focus on the balanced scorecard (BSC) approach pioneered by Dr. Robert Kaplan and Dr. David Norton in 1992. We also define what factors have resulted in a somewhat mixed track record of success with BSC implementations across commercial, government, and nonprofit organizations, and how the BSC approach is being adapted by leading IT organizations using ITIL, performance benchmarking, and other techniques.

The capability of IT organizations to develop, and successfully adopt, a meaningful performance management framework is increasing, but the alignment of IT performance measures to organizational strategies and related measures, often proves elusive. Determining what to measure is the first critical step for your IT organization but requires a systemic approach to ensure that your IT organization measures the following:

- Meaningful performance management that can be used to continually improve your IT services
- Activities that align to the overall strategy of your organization and achieve key business objectives
- Activities that assist senior IT leaders, managers, and staff in continuously improving your IT activities to achieve key business impacts
- Activities that determine the level of customer satisfaction related to your IT products and services to enable for ongoing course corrections to your customer activities
- Activities that determine the level of satisfaction of your IT managers and staff in your IT organization

From their initial work in the development of the BSC framework, Kaplan and Norton evolved the BSC to include cascading scorecards to measure performance at different levels of the organization. Kaplan and Norton use the term *cascading* to link scorecards at different levels of the organization. The term *cascading* indicates that organizational direction is determined by senior leadership, and their direction provides the basis for cascading down the organization for development of scorecards that link up to the organization's overall strategy. These cascading scorecards need to be linked to consistently measure the overall health of an organization. We discuss how IT organizations currently adapt the basic BSC framework and ways you can leverage these approaches for your IT organization. In addition, we discuss how to make your IT performance measurement framework conformant with leading IT practices such as the ITIL framework.

The software industry has developed a number of highly useful software tools to support the systemic application of performance measurement to your IT organization. We discuss the changes in the performance measurement of the software industry and how this impacts any performance management framework you may consider or are currently trying to implement for your IT organization.

Finally, we discuss the role of benchmarking in the development and ongoing use of an IT performance management framework. When properly applied, benchmarking is a significant tool for improving your IT operations but must be applied carefully to gain meaningful results.

What Is Performance Measurement for IT Organizations?

There are several definitions of performance measures, including:

> ***Performance measures are quantitative and qualitative ways to characterize and define performance. They provide a tool for organizations to manage progress towards achieving predetermined goals, defining key indicators of organizational performance and customer satisfaction.***[1]

The key elements of this definition include two broad categories of performance measures: quantitative and qualitative measures. Most organizations, including IT organizations, can quantitatively measure some aspects of the performance of their organization. This type of measurement focuses on data relatively easy to capture, measure, and report. Typical measures in this category include measures of volume, workload, and performance time. For example, typical quantitative measures can include the number of servers provisioned, lines of code written, mean time to repair, and system uptime.

Qualitative measures focus on activities that are intangible and often more difficult to measure. Customer satisfaction is a common intangible measure. Many organizations use customer surveys and a variety of measures of a help desk and service desk to provide the foundation for measuring customer satisfaction. However, customers are often reluctant to provide feedback on their level of satisfaction, either through indifference, time constraints, or a perception that their feedback will not be used to improve IT operations. As a result, many organizations either ignore intangible performance measures or use misleading indicators.

Although performance measures provide individual measures of specific elements of organizational performance, *performance management* is a broader term to define the processes organizations use to apply performance measures to the continual improvement of organizational performance. Other definitions of performance management include:

> ***Performance management is the process whereby an organization establishes the parameters within which programs, investments, and acquisitions are reaching desired results.***[2]

> ***Performance management is the process of assessing the progress made (actual) towards achieving the predetermined performance goals (baseline).***[3]

Kaplan and Norton evolved the process of performance management into a specific method of managing performance defined by the BSC:

> ***The Balanced Scorecard is a management system (not only a measurement system) that enables organizations to clarify their vision and strategy and translate them into action. It provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results. When fully deployed, the Balanced Scorecard transforms strategic planning from an academic exercise into the nerve center of an enterprise.***[4]

Lingle and Schiemann further evolved the definition of performance measurement to include "measurement-managed organizations."[5] The focus of Lingle and Schiemann's work is on organizations that have adopted a balanced set of key performance indicators (KPIs) to tightly manage their businesses to both execute organizational strategy and to manage to profitability. These types of organizations do not use performance management as a bureaucratic exercise, a task that must be accomplished, or another management report to be completed. Rather, these organizations culturally embrace the value of performance management discipline to provide meaningful information that they use to make sound business and operational decisions to enable their mission.

The key element common to both the BSC and management-measured organizations is the link to organizational strategy and key business objectives. Performance measurement should ultimately be applied to help your organization, and specifically your IT organization, to perform as efficiently and effectively as possible to achieve key business objectives, such as increased net income for private organizations or constituents served for certain public organizations.

One of the biggest challenges in the development of an effective IT scorecard is the development of measures appropriate to each level of your organization. The measures developed to determine organizational performance at a strategic level are different from the detailed measures used at a lower level in your organization. Consistent with ITIL's perspective on measuring the return on investment (ROI) of an IT project or service, we see performance measures developed that are:

- Strategic
- Tactical
- Operational

All performance measures must ultimately support the strategy or mission of the organization. Kaplan and Norton have used the term *cascading* scorecards to capture the criticality to organizations of measuring performance at multiple levels within the organization, but ensuring that measures are linked, or cascade, between organizational levels. For example, in developing an effective business case, ITIL suggests that you develop business impacts that support business objectives. All measurements start with a clear organizational understanding of the overall strategy and goals of each organization. These goals are often referred to as the business objectives.

Organizations also use a variety of terminologies to define what they measure. Although we use the terms *performance measures* and *key performance indicators* interchangeably throughout this book to define measures of organizational performance, various terms are in use, including *desired business results* and *measured outcomes.*

An unlimited number of performance measures are available for any organization to adopt at all levels of the organization. One of the critical success factors for any organization desiring to utilize performance measures for effective decision making is the ability to select a limited set of meaningful performance measures in use at all levels of your organization. Balance—achieving a set of performance measures at each level of your organization that assists your organization's senior leadership, managers, and staff to measure and adapt performance to achieve the strategy or mission of your organization—has proven to be an elusive goal for achieving organizational success. This situation occurs primarily because organizations do not spend enough time when first developing performance measures to determine what performance measures will provide meaningful information, on a timely basis, to decision makers in their organization. Organizations make the mistake of either attempting to define and capture more performance measures than can be reviewed and used by decision makers or using too few performance measures so that the organization gets an incomplete picture of current operations to make meaningful decisions.

A common way to achieve this balance through the BSC and measurement-managed organizations is to focus on developing a balanced set of measures, which includes the measurement of internal processes using ITIL. This element of performance measurement is growing in importance as ITIL adoption increases in IT organizations worldwide. As IT functions and organizations reorganize around ITIL, their performance measures must adapt to these best practices. As ITIL and other best practice

frameworks have defined, standardized business practices can be used to effectively drive continually improving performance for your IT organization. Performance measures applied to the ITIL practices adopted by your IT organization can further enhance your IT organization's adoption of an industry frameworks like ITIL. Many available performance measurement systems are "ITIL conformant," or accepted as common measures in use in IT organizations. We strongly recommend considering ITIL-conformant systems and methods as you develop your approach going forward.

Why Use Performance Measurement for Your IT Organization?

Academics, businesses, and government organizations have conducted a number of studies to determine the benefits of adopting some type of systemic performance measurement, or a scorecard, to measure and improve their performance. Lingle and Schiemann conducted a seminal study that defined the characteristics of such organizations, as shown in Table 6-1.[6]

Table 6-1 Characteristics of Organizations Using Performance Measurement

Reported	Measurement-Managed Organizations	Non-Measurement-Managed Organizations
Clear agreement on strategy among senior management	93%	37%
Good cooperation and teamwork among management	85%	38%
Unit performance measures are linked to strategic company measures	74%	16%
Information within the organization is shared openly and candidly	71%	30%
Effective communication of strategy throughout the organization	60%	8%
Willingness of employees to take risk	52%	22%
Individual performance measures are linked to unit measures	52%	11%
High levels of self-monitoring by employees	42%	16%

Three key findings from this study of the elements of a management-measured organization versus a non management-measured organization require further examination:

- An agreement on strategy and effective communication of strategy throughout the organization is necessary.
- Unit performance measures are linked to strategy, and individual performance measures are linked to unit measures.
- Information in the organization is shared openly and candidly.

Agreement on Strategy

We are continually surprised by the number of clients whose managers and staff cannot clearly articulate the strategy and business objectives of their organizations. Caught up in the operational details of daily work life, managers and staff often gradually lose focus on what strategy and goals their organization must achieve and how their organization is planning to achieve them. The daily tumult of operational activities, and the constant reaction to challenges that are perceived as crisis slowly draw managers and staff away from the overarching mission or strategy of their organization. This challenge is especially difficult for geographically dispersed, decentralized organizations. Also, as organizations operate in a rapidly changing global environment, senior leadership must constantly adapt their strategies not just for today, but also for the future. They must adapt their organizations to deal with emerging threats and opportunities.

When you drive your car, you utilize a number of "indicators" on the dashboard to regulate your performance. You carefully monitor the speedometer against the legally posted speed limits. You periodically review the fuel gauge to ensure you have an adequate supply to reach your destination, or you plan ahead for a refueling stop to keep your supply adequate. With advances in technology, it is increasingly common to use a navigational system to monitor the location of your car and determine the optimal route to get to your next destination. But the most critical decision you make every time you step into your car is fundamentally this: Where are you going?

An organization's strategy sets the overall decision about where an organization is going. A performance measurement scorecard or a balanced set of performance measures your organization uses to measure and

correct performance can be automated into a dashboard your organization can use at multiple levels in your organization to measure and correct performance. A common reference in industry at this time is to refer to an automated performance scorecard as a "digital dashboard." Your digital dashboard performs the same function for your organization that your car's dashboard performs for you when you are driving. The digital dashboard provides a visual, easy-to-understand, limited set of performance indicators that you can use to take corrective action to get to your desired destination.

But the foundation of any BSC is strategy. If your senior management, managers, and staff do not agree on the strategy for your organization, it is difficult to get to an organizational destination when that destination is not known or is not commonly understood. Your IT organization will not be able to create a meaningful IT scorecard that links to higher-level organization strategy, when that strategy either does not exist or at a minimum is not understood or agreed to.

When a valid organizational strategy does exist, it is a critical success factor for any organization to communicate this strategy consistently to all levels and physical locations of the organization.

Linked Performance Measures

The most basic, fundamental failures of implementation and ongoing adoption of performance measurement scorecards are a result of failing to

- Create appropriate, meaningful measures at differing levels of an organization to continually improve organizational performance.
- Link measures from the employee, up to the unit, up to the division, and ultimately up to the highest, strategic level of an organization.

To avoid these two mistakes, all levels and departments of your organization and your IT department must be willing to be measured. Your organization must embrace the discipline that comes with a properly developed, implemented, and periodically adjusted system of measures that you will use to adapt the performance of your organization in executing your organization strategy or mission. Performance measurement must be integrated into the culture of your organization. Your senior leadership, managers, and staff must see the value of performance measurement to both their individual success, and the success of the organization, for performance measurement to yield the incredible benefits to

the organization that can be obtained by a disciplined, consistent measurement approach.

The senior leadership of your organization must be clear, consistent advocates of systemic performance measurement, which is the underpinning of performance management. While setting a clear strategic direction for your organization, your senior leadership must also put in place a performance management system to guide organizational performance and derive business value. With this clear direction in place and communicated throughout the organization on a consistent basis, your IT organization can develop an IT scorecard for use in measuring ongoing operations.

Your IT scorecard must include a clear link with your overall strategy and direction. Your IT scorecard must also cascade down to the scorecards of each organizational component of your IT organization and link even further directly into the individual development plans (IDPs) for each manager and staff in your IT organization. Performance management is at its most powerful as an enabler of organizational success when each individual in your organization, and specifically your IT organization, can see how individual performance goals cascade directly down from the overall organizational strategy.

In Chapter 8, "Success Stories: Improving Service and Lowering Costs," we discuss in detail the successful implementation of a BSC set of performance measures at the city of Corpus Christi, as well as the use of performance measures in the IT organization of Neighborhood America, an entrepreneurial social networking company in Naples, Florida.

How do you make this happen for both your overall organization and specifically for your IT organization?

Information Sharing

Performance management is not effective if used as a punitive tool to point out performance below targets. Performance management is best used as an early warning system of performance-missing target measures and a means of identifying the need for a corrective action plan to correct this lag in performance. If your organization is unaware of a developing area of lagging performance, the organization cannot develop and implement a corrective action plan. Most of us would not want our cars to run out of fuel before realizing the level was getting low. We use the fuel gauge to warn us of any pending need to refuel our car. However, we recognize the reality that employee compensation is often linked to the achievement of specific performance levels, so the culture

of your organization must consider environmental factors that impact the achievement of specific performance levels. If an economic downturn occurs, performance goals must be adapted to the changing realities of macro environmental factors.

The culture of your organization must support performance management as a wise use of organizational resources to enable success for both the organization and the individuals that compose each organization.

Studies of management-measured organizations such as the study by Lingle and Schiemann make a compelling case for the value of using performance measurement when linked to overall organizational performance, as shown in Table 6-2.[7]

Table 6-2 Linking the Use of Performance Measurement to Organizational Performance

Measures of Success	Measurement-Managed Organizations	Non-Measurement-Managed Organizations
Perceived as an industry leader over the past three years (1999–2002)	74%	44%
Reported to be financially ranked in the top third of their industry	83%	52%
Three-year ROI	80%	43%
Last major cultural or operational change judged to be very or moderately successful	97%	55%

Although a compelling case can be made for the benefits of systemic performance measurement to the overall organization, the individuals that make up your organization at all levels must also see the value of this approach to their individual careers.

In many organizations, the senior leaders, managers, and staff understand through trial and error what behaviors are rewarded by their organization. In many cases, the rewarded behavior is not consistent with the stated goals of each organization. A successful performance measurement approach ensures consistency of cascading performance scorecards, down to the individual level, to drive a high level of performance by a consistent, measured vision of organizational success that all members of an organization can recognize and embrace in all their activities on behalf of the organization. To achieve this requires commitment and acceptance from across the senior leadership, managers, and staff of your organization. Although performance measurement is

challenging to implement, the rewards in terms of organizational performance are significant and justify the commitment of organizational resources to achieve.

The Balanced Scorecard Adapted for IT Organizations

In 1992, Kaplan and Norton first published their work on the BSC. While including financial measures as a portion of the BSC, Kaplan and Norton expanded their basic measurement scorecard to include measures across four focus areas, or perspectives, including:

- The financial perspective
- The customer perspective
- The internal business process perspective
- The innovation, learning, and growth perspective

Although measuring performance in a number of focus areas is commonplace now across organizations, the original BSC was groundbreaking in broadening the measurement of organizational performance beyond traditional financial measures. The original BSC is represented in Figure 6-1.

The BSC acts as a link from the strategy of your organization to the daily operational performance of all components of your organization. The specific measures of the BSC can be further categorized as follows:

- **Leading indicators:** These are forward-looking measures, such as customer demand and customer satisfaction.
- **Lagging indicators:** These are measures that indicate where the organization has progressed, such as ROI and financial results.

Many organizations have adopted this construct of four focus areas for measurement of organizational performance, but they must specifically tailor it to the unique operating environment and customers of IT organizations. Driving IT organizations to change their culture to a more performance-driven, strategic focus requires adapting the basic BSC construct to fit the IT environment.

A number of leading IT organizations have already begun significant work in this area. Forrester and Gartner have both published IT

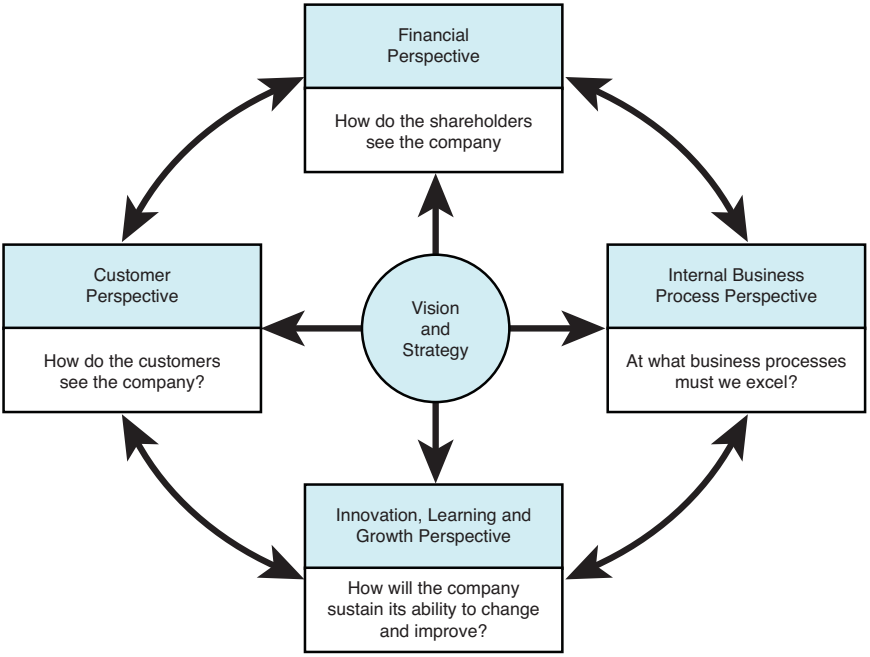

Figure 6-1 The original balanced scorecard concept from Kaplan and Norton

scorecard perspectives that translate the four perspectives in the initial BSC into potential IT scorecard perspectives, as shown in Table 6-3.

Table 6-3 The Original Balanced Scorecard Concept Adapted to an IT Scorecard

Balanced Scorecard	Becomes	Forrester[8]	Gartner[9]
Internal processes	⇒	Operational excellence	Operational excellence
Customer	⇒	User orientation	Customer
Financial	⇒	Business value	Business contribution
Learning and growth	⇒	Future orientation	Future

Next, we examine each of these four BSC perspectives and how they are tailored to the IT environment.

Internal Processes and Operational Excellence

The current IT industry focus on the adoption and use of IT best practice frameworks, such as ITIL, supports the validity of using the internal process perspective from the BSC as one of the initial building blocks for an IT scorecard. But what is the significance of modulating this initial BSC terminology to become "operational excellence" under any potential IT scorecard?

One common definition of *operational excellence* follows:

> ***Operational excellence is a philosophy of leadership and teamwork resulting in continuous improvement throughout the organization by focusing on the needs of the customer, empowering employees, and optimizing existing activities in the process.***[10]

Four elements of this definition will be critical to the success of your IT organization in the next three to five years, including:

- **Philosophy resulting in continuous improvement:** An organizational philosophy is a common set of values or behaviors accepted as appropriate for an organization. An organization that has a philosophy of continuous improvement demonstrates a focus and commitment in daily operations to identify, scope, and execute improvements to all aspects of organizational performance.
- **Focus on customer needs:** In an approach made popular by Edward Deming, an organization exists to serve its customers, and all aspects of organizational performance should exist only if serving a tangible customer need.
- **Empowering employees:** Empowerment is an approach that relies on employees at all levels of an organization executing their work activities and the activities of the organization in the most efficient and effective manner possible. This approach does not rely on top management being directive down the organization on how to optimize operations, but rather empowers employees to lead change in the organization on operational efficiency.
- **Optimizing activities within processes:** Processes are composed of discrete activities. Much focus in industry today is on optimizing processes, but a significant amount of process optimization work is substantially

complete in many organizations. Organizations now need to focus on improvement at a detailed level below the process level (the activity level).

Best practice IT organizations embrace these four elements of operational excellence. These best practice organizations recognize that it is not enough to focus on the development and optimization of technology. In addition to rewarding strong technical skills, these best practice organizations also focus on operational excellence through innovative methods such as cross-training IT staff in financial or customer relationship skills, as discussed in Chapter 7, "IT Business Skills: Enabling Customer Outcomes."

Performance measures also encourage IT organizations to focus on the customer. With the intense competition between internal and external IT service providers, your IT organization must be increasingly focused on honing in on who the customer base is and what the current and future needs for IT products and services are. Edward Deming had it right: You start with your customer and work backward to create an IT organization that can deliver outstanding customer outcomes at a market price in a timely manner to the customer needs. Customer focus is gradually becoming equal to technological prowess in terms of the characteristics your IT organization will need to adapt to be successful.

Performance measurement also helps IT organizations in their constant, competitive battle to attract and retain IT professionals who can deliver the constantly evolving range of IT products and services needed by your internal customers. No longer can your IT executives and managers succeed with only a focus on a few siloed technical skills. Your IT leaders must gain and exhibit a broader range of skills to be successful, including a focus on customers and financial/project management. In return for your IT leaders developing this broader range of skills to enable the success of your IT organization, you must be better able to create a working environment and long-term career path needed to retain these skilled IT professionals. In a highly competitive labor market, your IT organization must work with your Human Resources organization to develop comprehensive compensation methods that reward IT professionals and increase your rate of retention of IT managers and staff.

Performance measurement also helps you focus on optimizing the discrete components that make up a process: the activities. Although business process reengineering and business process improvement efforts do an outstanding job of creating new or optimizing existing optimal

processes, the level of best practice detail provided in leading IT process frameworks, such as ITIL, allows for improvement at a more microlevel in your IT organization. Specifically, when your organization is identifying continual improvement opportunities, you should focus your improvement efforts at improving specific organizational activities. Many IT organizations are increasingly using Lean and Six Sigma to analyze and improve specific IT activities that compose your critical operational processes.

But, by far the most critical element of this definition your IT organization will need to examine and adopt is the "philosophy of teamwork and leadership resulting in continuous improvement." We equate philosophy to organizational culture, using the Edgar Schein definition of *organizational culture:*

> ***A pattern of shared basic assumptions that the group learned as it solved its problems of external adaption and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way you perceive, think, and feel in relation to those problems.***[11]

According to Schein, culture is the most difficult organizational attribute to change, outlasting organizational products, services, founders, and leadership and all other physical attributes of the organization.

To adopt operational excellence as a cornerstone of your IT organization, and therefore as a cornerstone of your IT scorecard, requires your IT organization to either utilize an existing culture of commitment to operational excellence, or design and adopt a culture of operational excellence as part of all aspects of your IT operations.

Achieving all aspects of this definition of operational excellence is a challenge for your IT organization, and using operational excellence as the first component of your BSC-based IT scorecard will provide your IT organization a critical enabler to measure, adapt to, and achieve operational excellence in its complete form.

The Customer and User Orientation

The second component to allow for when considering a BSC-based IT scorecard is a component focused on either *customers* or *user orientation.* Are these two terms synonymous?

Some common definitions of *customer* include the following:

Customer is one that buys goods or services.[12]

Customer is an entity that receives or consumes products (goods or services) and has the ability to choose between different products and suppliers.[13]

The common elements to these definitions are those individuals or organizations that buy, receive, or consume goods or services and who have the ability to choose between multiple service providers. These definitions underscore a critical distinction between the customer that buys, in this case, IT products and services, and the customer who receives and consumes IT products and services.

In many operational or business units within an organization, the organizational component responsible for purchasing IT products and services is distinct from the organizational component that receives and consumes IT products and services. For example, if a warehousing organizational unit purchases a new software tool from its internal IT organization to track goods and services in each organizational warehouse, the finance or accounting component of this business unit may "buy" the new software tool, and the line managers and staff in each warehouse may receive and use the software tool.

A user, by definition, uses IT products and services according to a common definition of *user:*

User is a person who uses a computer or internet service, and may have a user account that identifies the user by a username, screen name, or handle.[14]

A further distinction of users of IT products and services are *end users,* who can be defined as follows:

End user is a concept in software engineering, referring to an abstraction of the group of persons who will ultimately operate a piece of software.[15]

So, should an IT scorecard create and track a series of measures around customers or adopt a user orientation?

Through cooperatively developing service level agreements (SLAs) with internal and external customers, you can effectively address both the end user and customer. The end user is actually a subset of customers, and therefore an effective IT scorecard should adopt as its second critical component a customer orientation, but with a focus on

measuring the end user requirements and experience. Based on the requirements in an SLA, you can effectively measure both the end user's experience with a service and the customer's requirements. For example, the SLA can define that the end user may need a particular functionality for an application, but that the paying customer, often the parent organization, is willing to pay only a defined amount of money for a given change request. Developing this level of detail in your SLA or similar document helps to balance and measure these sometimes competing needs.

Financial and Business Value

For most organizations, and especially commercial organizations that have shareholders and other investor-owned organizations, financial measures are the most important performance measures. The primary evolution on this component of the BSC framework has been a growing focus on not only measuring financial activity, but also focusing on the use of organizational resources producing value or contribution to the organization.

This evolution of the financial component of the BSC framework is especially relevant for your IT organization. Senior executives in organizations increasingly expect that your IT organization is investing in IT projects and IT infrastructure that directly contribute to the execution and achievement of the overall strategies or mission of your organization. IT executives, and specifically the CIO, must increasingly show the direct correlation between IT investments and spending and overall organizational success.

Many IT staff lack the training or experience to translate an IT solution into business terms for purposes of a business case. Similarly, many business or financial staff cannot translate their needs into IT requirements. In Chapter 5, "IT Business Cases: Realizing IT Value," we summarize a number of strategies to bridge these gaps and develop an effective set of financial performance measures.

ITIL provides an excellent framework for that, by including links between IT projects, business objectives, and business impacts (see Figure 6-2).

The methods for defining the business value of IT investments summarized in Chapter 5 can also be applied to developing effective performance measurement methods. This is a critical aspect of your performance measurement system.

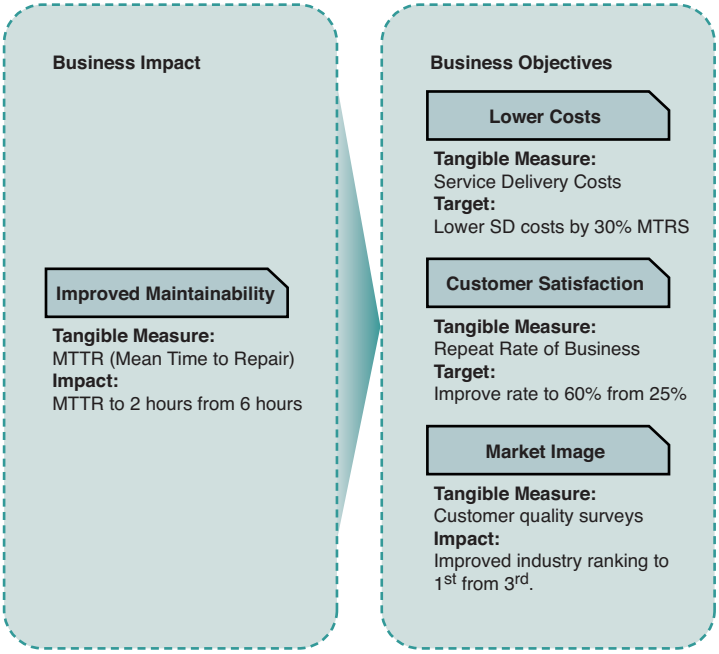

Figure 6-2 A single business impact can affect multiple business objectives.

Learning and Growth/Future Orientation/Future

What is the future? One common definition of the *future* regarding business follows:

> ***Future is a prospective expected condition, especially one considered with regard to growth, advancement, or development.***[16]

Being successful today is no guarantee your IT organization will continue to be successful in the future. Numerous external and internal factors drastically impact the ability of your IT organization to continue to be successful. In professional sports, the same team does not win the championship every year. However, certain franchises are able to be highly competitive on a regular basis, when a majority of franchises enjoy only infrequent success. What characteristics are common to franchises that win on a more consistent basis?

Among the key factors for success are the following:

- The ability to recruit and retain talented players who commit to continual success

- The ability to develop new strategies for success to meet competitive challenges
- The ability to retain existing successful strategies so the franchise is not in continual flux
- Owners and senior leadership who continually communicate the commitment to and expectation of winning
- Continual study of competitors for new strategies that can be adopted or competitor weaknesses that can be exploited

Including these factors in your performance measurement system will help ensure the future success of your IT organization by having a workforce with the skills and abilities to execute your performance management system.

This focus on learning and growth in your performance management system will also address a critical success factor for any IT organization: new or emerging technology that your customers will eventually demand to execute their business. With so much focus on maintaining the existing IT applications and infrastructure, and the continual need to consolidate and retire aging technology, few IT organizations have the time and organizational resources to devote to tracking and developing emerging technologies. There is simply too broad a range of new hardware, software, and targeted applications for any IT organization to track the full range of new technologies.

In addition to new or emerging technologies, much of your current technology is going to continue to evolve through almost continuous new releases, upgrades, and patches that require attention. Your IT organization will continue to reach inflection points where your IT leadership will need to make course corrections to keep pace with technological change. The popular media do a great disservice to internal IT organizations by presenting new and emerging technologies often as appearing available on a commercially viable scale when new technology is only in the development stage. Business and operational unit managers read about new technology and expect their internal IT organization to have answers to a range of questions about these technologies, when much of the resources of an IT organization are focused on the daily challenge of keeping the existing applications and infrastructure running.

Although new or emerging technologies can be interesting from a technical view, your IT organization should track and scope the viability of only new or emerging technologies that are relevant to the industry,

market, or mission space of your overall organization. For example, many companies assumed there was tremendous value for their organization using the Internet when it first came into common commercial use in the 1990s, but after much trial and error, a portion of businesses realized that the Internet was not a key enabler of their business model.

One place to look when scanning the market for relevant new or emerging technologies is the new technologies being adopted or targeted for adoption by competitors in your marketplace. The area of business intelligence has evolved rapidly in the past few years. Many companies have purchased and utilized a variety of business intelligence tools (we include under business intelligence customer relationship management, corporate performance management, and knowledge management) to segment and dissect the buying patterns of key customer segments. Even if a competitor either comes to market or utilizes a new business intelligence tool that your IT organization had not identified and targeted for implementation, the speed with which your IT organization can adopt and implement either the same tool or a similar tool is a critical success factor for your IT organization.

Looking to the future does not mean your IT organization has perfect vision for new or emerging technologies that enable your overall organizational strategy or mission. What looking to the future does mean is that your IT organization exhibits due professional care to do the best job possible with your available organizational resources to scan the IT industry and competitors for enabling tools that your organization can adopt. It also means that if your IT organization does miss a potential IT enabler for your organization success, the organization can react, adapt, and implement this technology in a reasonable time frame to counter the moves of competitors.

How Many Components Do You Need for Your IT Scorecard?

Although the original BSC construct has four focus areas (or perspectives), each organization is unique and should adapt this framework to its own specific structure. This focus is a critically important concept to understand and apply. Specifically, your IT organization can adopt the four perspectives in the original Kaplan and Norton model, but this is not necessarily the optimal approach for a specific IT organization.

There have been numerous stumbles and outright failures in BSC implementations, and one of the consistent, root causes of these failures

is the attempt to take the basic BSC construct and apply it directly to your IT organization. This approach can work in limited situations, but understanding the original BSC construct is only a starting point for developing and using an effective IT scorecard for your IT organization.

A critical concept to understand and apply to your IT scorecard is that you can have as many or as few focus areas for your IT scorecard that produce meaningful data for your IT organization to make decisions to continually improve your IT operations.

We discussed four potential focus areas for your IT scorecard: operational excellence, customer, business value, and future orientation. However, our discussion points to additional potential focus areas that would warrant a distinct additional component to your IT scorecard. These areas include employee commitment, user orientation, environmental scanning, and innovation.

We recommend a phased approach to the development of your IT scorecard based on your unique IT organization. Specifically, for the development of your initial IT scorecard, we suggest adding three components:

- Customer
- Operational excellence
- Business value

This recommendation is based on the fact that your IT organization must attract and retain customers. The customers must perceive that your IT organization is providing IT products and services that enable the customers to add value to the overall achievement of their organizational strategy and mission. You drive achievement of satisfied customers by driving waste out of your IT operations, and you do this by adopting or enhancing a philosophy of excellence in all aspects of your IT operations.

Achieving an effective IT scorecard that captures meaningful KPIs in these three components will take significant time and commitment of organizational resources. The next two components for an IT scorecard you should consider are:

- Future orientation
- Employee commitment

These components should be developed as your IT scorecard matures as a decision-making enabler for the IT organization.

After you have created your initial groupings, the IT scorecards must contain the appropriate level of detail to produce meaningful data for your IT organization to make decisions to continually improve your IT operations. Defining your IT scorecard components clearly and concisely provides the boundaries for development for the specific KPIs you will track and utilize as an organization.

A successful IT scorecard will develop and adopt to many components or focus areas by defining a grouping of individual KPIs to utilize within each component. Resistance to the use of an IT scorecard and individual KPIs is not uncommon in IT organizations. Part of this resistance is a legitimate concern that many IT scorecards in use do not produce meaningful information for IT decision makers to make course corrections to IT operations. However, resistance to IT scorecards also occurs because some IT managers and staff do not want to be measured.

Common Performance Measurement Software Tools

The business intelligence software market, which includes performance management tools, has consolidated significantly in the past several years. These software tools provide managers with robust methods to develop performance management systems. The three largest software vendors in this market space are:

- IBM, primarily through the acquisition of Cognos® in November 2007
- SAP, primarily through the acquisition of Business Objects in October 2007
- Oracle, primarily through the acquisition of Hyperion in March 2007

Although these are not the only software offerings in the business intelligence market space, these acquisitions point to a consolidation of the software available as a foundation for an organizational performance management system. Specifically, they point to the development of a specific IT scorecard for your IT organization.

Your initial consideration of an approach to development of a new IT scorecard, or enhancement of any existing IT scorecard, should consider whether you are utilizing any of the three software offerings listed previously somewhere in your broader organization. This exercise may seem simple, but in highly decentralized, geographically dispersed organizations, it

may be difficult to determine whether any of these software offerings are already in use in your organization.

Managing Development and Use of Your IT Scorecard

Many of the steps to successful development, deployment, and ongoing use of your IT scorecard are similar to the process for adoption of the ITIL framework for your IT organization. You must do the following:

- Obtain executive sponsorship for your IT scorecard project.
- Select and empower a cross-functional internal team to develop the initial IT scorecard.
- Consider use of an external consultancy or individual expert to guide your project.
- Charter the project with a clearly defined timeline to completion and measures of success, define key milestones, and define the total organizational resources required to execute the project.
- Develop a list of key stakeholders to the project and reach out to these various stakeholder groups on a regular basis to communicate ongoing project activities.
- Rigorously track the progress of the project and take corrective action if at any time the project is failing to achieve key milestones and successfully achieve project measures.

So what is different about an IT scorecard development and adoption project versus an ITIL adoption project?

There are five factors you must consider in your IT scorecard project that are unique to this project:

- You should determine whether you are going to have committed, full-time staff dedicated to an organizational unit in your IT organization to track and report on your IT scorecard or embed these activities within existing organizational components in your IT organization.
- You should consider segmenting out your application development and application maintenance performance measures from your performance measures for your infrastructure/ongoing operations performance measures.

- You should consider the use of benchmarking to compare both your current performance measures and desired future state performance measures against some measure of desired performance commonly accepted in the IT industry.
- You must include your enterprise architect or specifically your data architect in the development of the IT scorecard because most IT organizations have a tremendous amount of existing data that can be mined using business intelligence tools to populate the performance measures you decide to track using actual data.
- You should be sure whatever IT scorecard you develop is ITIL conformant.

Organizational Positioning of Your IT Scorecard Activities

When an organization is taking on a new skill or activity, it is common to create an organizational component to specifically tackle this new activity. A focused, rigorous approach to performance management is often a new activity for many IT organizations. Therefore, many IT organizations will create a dedicated performance management organizational component to be the focal point of performance management activities. Although this organizational component can be relatively small compared to the overall IT organization, many IT organizations use this approach of a dedicated performance management team to signal to the IT organization that this is a significant focus for the organization requiring dedicated resources and to emphasize that this organizational component will apply and also continue to develop organizational expertise around IT performance management. Frequently, this performance management organizational component is embedded into a continual service improvement (CSI) unit.

This approach presents several risks. The most significant risk of this type of organizational model is that the performance management team becomes disconnected from the daily operations of your IT organization and quickly becomes ineffective at tracking meaningful performance measures for IT decision makers. Without being directly embedded in each of your IT organization's business units, the performance management organizational component will become quickly marginalized because it does not work within the IT units to track performance measures. One approach to minimize this potential risk is to rotate IT

line managers and staff through the performance analysis unit on fixed rotations.

The importance of performance measurement must be communicated continuously within your IT organization, reinforced as being part of a culture of CSI, and positioned organizationally and physically, to indicate its significance to the ongoing IT operations.

There are two effective alternatives to creating a stand-alone performance management organizational component:

- Embed your performance management analysts within each of your existing IT organizational components and have these analysts report in a matrix organizational design to a senior IT leader, such as the deputy CIO, who has a view across the IT organization.
- Have a small, dedicated performance management group but have this group report directly to the CIO or deputy CIO. The CSI unit should contribute to any service improvement plans (SIPs) resulting from reviews of performance measures.

The benefit of both of these organizational designs for your performance management units is that it shows the importance of these activities to your IT organization. It does so by the positioning of being a direct reporting function to the CIO and deputy CIO and providing meaningful information to key IT decision makers without any potential filtering or intervention by lower-level IT managers or staff.

Segment Your Application Development and Application Maintenance Performance Measures

Application development (AD) and application maintenance (AM) consume a large portion of the overall resources in some IT organizations. In these cases we recommend that you develop an IT scorecard specific to AD. This AD scorecard should be a more tactical, detailed scorecard than the overall IT scorecard you develop to measure and improve the performance of your overall IT organization. Using the Kaplan and Norton framework, this cascaded scorecard should be consolidated into your overall IT scorecard.

AD and AM continue to receive significant focus in IT organizations. Application projects typically are not started without a rigorous

PERFORMANCE MEASUREMENT CASE STUDY

We were at a client site and attended a meeting of the performance measurement team (PMT) that was responsible as part of a large-scale system implementation for developing and tracking performance measures. What was immediately evident was that the PMT had limited knowledge of what activities were occurring within the software and hardware development teams and had limited, if any, contact with these development teams. The PMT was physically operating in a building in a different part of the city from the development teams and was relying on posted information of development activities on an intranet site to attempt to develop initial performance measures, targeted future state desired performance levels by performance measures, and time intervals for achievement of the targeted future state performance levels. Although senior leadership at the client clearly had communicated the importance of cycle time for selected organizational activities as critical success factors, the PMT was primarily focused on common project management performance measures, including lines of code (LOCs) and error rates. Following were some of the drivers of this apparent disconnect:

- The PMT leader indicated that the PMT perceived that they were an unimportant activity to the overall organization, and that their efforts were marginalized by leadership of the project.
- The physical separation of the PMT created a perception of being disconnected from the project.
- The PMT leader and staff indicated that the culture of their organization was not committed to CSI.
- The PMT leader indicated the PMT staff in general were poor performers, or "short timers," who had been staffed to the PMT as a place to "keep them busy."

When we discussed the situation with the overall project leadership team, they indicated that they considered performance measurement to be a critical part of the project. This indicates that some level of disconnect was occurring within the project, and it was related to the effective tracking and use of performance measures.

business case analysis, and with each business case producing a target rate of return that exceeds the target hurdle rate for IT investments in your organization. A majority of common application performance measures in use by IT organizations would fall in the two components we defined for your overall IT scorecard of operational excellence and business value.

Under the AD and AM scorecard component of operational excellence, we put performance measures related to productivity and quality. Productivity measures in the AD environment should focus on the productivity of your developers in general. This component would focus on throughput—specifically, how many LOCs your developers generate on a consistent basis. Quality measures would focus on the error rate in the generated LOCs. Generating a high volume of LOC is virtually meaningless if both the error rate in the generated code is excessive and the functionality being created by the generated code does not meet the required functionality of the customer. The functionality issue is a performance measure linked to the "customer" segment of your AD scorecard but is mentioned here to stress the connectivity of the various components of the AD scorecard. We recommend also including in this component a measurement of time required to repair errors in generated code.

Under the AD scorecard component of business value, we recommend grouping your financial measures of the financial return generated by the commitment of organizational resources to specific AD projects. Your organization should commit organizational resources only to AD projects that produce software that enables the execution of your organizational strategy. The link of your AD investments directly to your organizational strategy must be measured and acted upon. AD projects that do achieve the projected financial returns defined in the initial business case for each project must be reviewed for either termination, if the AD project does not appear to be able to generate sufficient financial returns to justify the ongoing commitment of organizational resources, or targeted for corrective action so that the original projected financial returns can still be obtained with a focused intervention. Your AD scorecard can prove invaluable as an early warning system for AD projects that are not on schedule to obtain required results for your organization.

Use Benchmarking for Your IT Scorecard

Benchmarking is a continual improvement tool that can be highly effective in improving organizational performance when properly applied. Benchmarking is not a solution to all the failures of any organization. It is a tool. It is one among many business discipline tools that can be used to solve specific, well-defined problems, but it is not a cure-all for poor organizational performance.

In general, benchmarking is a process organizations use to compare their performance against the performance of external organizations that are considered to have "best practices" in a specific area relevant to your organization. For example, Company ABC might have a highly efficient accounts payable process, supported by technology enablers. If your organization is struggling to make payments on a timely, accurate basis, you may compare your processes and supporting technology enablers against the payment approach at Company ABC to determine whether it is economically justifiable for your organization to adopt the payment practices at Company ABC. This is a common benchmarking effort. You select specific areas of lagging performance in your organization for improvement. You identify external organizations that are considered to have leading performance in the specific area you selected for improvement within your organization. You study the specific activities in use at this external organization and determine whether you can adopt these activities into your organization to improve performance.

Benchmarking is often a misunderstood and misapplied business discipline. Xerox is generally credited with developing and using the concept of benchmarking in the early 1980s. One common misconception about benchmarking is that you select only external organizations in your industry as target benchmark organizations. There are several ways to select target organizations, including:

- **Functional benchmark organizations:** You may have selected your payment processes for improvement. Although your organization may be a commercial bank, you can select target benchmark organizations from across any industry segment that exhibit best practices in payment processing. Payment processing is a functional skill, not specific to a specific industry. Best practice payment processing may occur in a retail company, not a commercial bank, but is applicable to your banking organization.

- **Internal benchmarking:** You may have multiple organizational components in your organization that execute a common activity, such as payment processing. Before looking outside your organization for target benchmark organizations, consider looking internally across the organization to see whether a best practice approach to payment processing exists within one of your organizational components, and share this approach across the organization. This is a common approach to benchmarking in large, geographically dispersed organizations. For example, your operating unit in Ireland may have best practices for payment processing, but these best practices are not in common use across your global organization. An internal benchmarking approach is often a cheaper, faster alternative to external benchmarking.
- **Competitor benchmarking:** This is a common approach to benchmarking. When attempting to improve your operations in a skill set specific to your industry, you may target benchmark organizations only within your competitor community. For example, if your ATM operations for your commercial bank are lagging behind your competitors in the banking industry, you may look only within your competitor community to find best practices for ATM operations.

A number of commercial organizations provide benchmarking services and publish benchmarking reports on specific areas under common study across industries, such as payment processing. A number of the large consultancies provide benchmarking services, either on common areas of benchmarking, or will conduct customized benchmarking studies for specific clients.

The biggest risk of benchmarking, however, is it limits the creative process within the organization to look for new solutions to lagging internal performance. Benchmarking is inherently copying the approach to a performance area that another organization is already executing. Benchmarking is not a tool to develop new solutions to existing problems, so by using this tool, you are limiting the number of solution alternatives you can generate. What, then, is the relevance of benchmarking an IT organization?

Benchmarking should be applied against three areas of your IT organization: processes, performance measures, and organizational design.

SHARED SERVICES CASE STUDY

Our client organization wanted to create and run a shared services center to handle basic transaction processing activities in accounting, human resources, and Information Technology. The client organization had ten sites geographically dispersed across the United States. Each site had staff to perform this basic transaction processing activity just for its specific site. The driver to create a shared services center was to eliminate this duplication of effort and consolidate this activity in one location.

In developing a shared services model for this client organization, we took the client project team to five shared services centers across a number of industries. After visiting the five benchmarking sites, the client project team was able to discern common best practice elements to a shared services center. The shared services center was not a core activity for the client organization or for any of the five benchmark partners visited by the client project team. This is an example of highly effective functional benchmarking to strive toward industry best practices.

PROVISIONING CASE STUDY

A client organization wanted to reduce its backlog of servers to be provisioned and improve average cycle time for server provisioning. Given that this was a specific, limited problem, the client decided to benchmark internally to see whether a best practice existed within the current IT operations. This IT organization consisted of five operating units, and unfortunately from an efficiency perspective, all five operating units were provisioning servers in the primary data center. After forming a cross-functional internal benchmarking team to study the provisioning backlog, a new approach was created for server provisioning based on existing practices within one of the five IT operating units. This approach solved the provisioning problem without chartering a long-term benchmarking project.

Process Benchmarking

In our view, common best practice IT frameworks, such as ITIL, attempt to capture the full range of best practices needed by IT organizations across the globe. While capturing best practices for IT organizations in both performance measurement and organizational design, the ITIL framework is primarily focused on the processes within IT organizations. Therefore, a common and effective approach to IT benchmarking is the use and adoption of either ITIL or other leading IT industry best practice frameworks. Adoption of portions or all the ITIL framework is discussed in detail in Chapter 3, "Adopting IT Service Management Using ITIL."

Performance Measures Benchmarking

After you have selected the overall components of your IT scorecard and the specific performance measures you will target for adoption in each component, you need to consider the following:

- What is the current performance level of your IT organization against each individual performance measure you select to track and use for CSI?
- What is the target, or future, performance level your IT organization wants to achieve? (This is where the use of industry benchmarking is most effective.)
- What is the time interval for achieving your target performance level for each individual performance measure?

For example, if your IT organization has a mean time to repair (MTTR) for a system outage currently of 6 to 8 hours, your IT organization should consider benchmarking, or comparing, this MTTR against average performance levels for target benchmark organizations. If leading IT organizations have an MTTR of 5 hours, your IT organization could adopt a target, or future, performance level of MTTR of 5 hours. The next decision your IT organization would need to make is how quickly a target performance level of MTTR of 5 hours can be consistently achieved. We refer to a desired future performance level as a *target* and the length of time needed to achieve the target as *time intervals.*

Two key considerations your IT organization will need to make in the development of targets and time intervals for your IT scorecard performance measures are:

- Does your organization need to achieve best practice performance levels?
- Do the benefits to the organization of achieving best practice performance levels justify the commitment of organizational resources needed to obtain these performance levels?

Many of the activities performed by IT organizations for their customers are not mission-critical activities for the customers. Therefore, IT organizations do not always benefit their customers by achieving best practice performance levels on activities that are not mission-critical to their customers. Achieving high performance levels often comes at a cost to any organization. As you develop your IT scorecard, you must give significant cost considerations to which performance measures track performance that are critical to your customers. Many of your customers will have a select portion of the applications that your IT organization runs as being considered mission critical. Your customers will expect, and sometimes demand, high performance levels related to support for this segment of mission-critical applications. Other applications, not considered mission critical by your customers, will not be expected to perform at a best practice level of performance.

When you work with your customers to develop the performance measures that are embedded in negotiated SLAs, your customers will indicate the priority of the various applications you will support for them based on their manifested need for high performance out of selected, mission-critical systems. Benchmarking activities targeted at performance measures in your IT scorecard should focus on specific performance measures that tie to customer satisfaction.

Some specific IT benchmarking organizations benchmark specific areas of IT performance. Among these IT benchmarking organizations are:

- **Standard Performance Evaluation Corporation (SPEC):** This nonprofit was formed to establish, maintain, and endorse a standardized set of relevant benchmarks that can be applied to the newest generation of high-performance computers (www.spec.org).
- **Transaction Processing Performance Council (TPC):** This nonprofit was founded to define transaction processing and database benchmarks and to disseminate objective, verifiable TPC performance data to the industry (http://tpc.org).

Gartner and Forrester Research also provide high-quality benchmarking studies conducted at specific performance areas for IT organizations. While most major consultancies also provide strong benchmarking capabilities, SPEC, TPPC, Gartner, and Forrester are among the industry leaders in IT benchmarking and provide excellent starting points for your IT scorecard development and evolution.

Organizational Design Benchmarking

Although benchmarking of IT processes and related performance measures have a large body of existing service providers and supporting quantitative data, the area of benchmarking of organizational design for IT organizations is more embryonic.

Much discussion continues to occur in the IT industry around the federated, centralized, and decentralized IT organizational design models. However, no clear best practice model has emerged. This is largely due to the wide diversity of size and scope of commercial, nonprofit, and government organizations. This diversity of organizations makes development of a one-size-fits-all solution to IT organizational design difficult to achieve. The evolving role of the CIO and the emergence in many organizations of a chief technology officer (CTO) also results in a diversity of IT organizational designs.

Benchmarking of IT organizational designs often must be accomplished by selection of external benchmark partner organizations for study. A common approach to selecting IT organizations for potential benchmarking is to look at organizations of the same size and scale as your organizations. For example, we had a client IT organization attempting to make a decision about how to combine its legacy applications development unit with its emerging, large-scale application development unit. As part of this organizational design project, we selected several target benchmark organizations in the same industry as our client, with the same national footprint, to see how these target benchmark organizations structured their legacy and new application development groups.

Involve Your Enterprise and Data Architects Early in the IT Scorecard Development

Your IT scorecard, either at the IT organizational level or any of the cascading IT scorecards (such as an AD scorecard), must accurately capture the current performance level of each performance measure you decide to track and use to make decisions to improve the performance of your IT operations. IT organizations typically have a significant amount of existing data about the performance of ongoing IT operations. Unfortunately, this data is often captured in a variety of disparate, unconnected systems and applications that make capture and centralized reporting of performance difficult, if not impossible.

You must include either your enterprise architect (EA), or data architects, in the initial planning and development efforts around development of all levels of your IT scorecard. Nothing will doom a performance management project to quicker failure than developing a meaningful set of individual performance measures, grouped into logical components, but populated with inaccurate, if not outright wrong, performance data. Making business decisions with inaccurate data results in significant risks to all aspects of your organization and immediately undermines the credibility of your efforts toward holistic performance management.

A good data architect or data analyst can be one of the critical drivers of successful IT scorecard development and adoption. The data captured in your IT scorecard must be accurate. A lack of quality data will immediately call into question the validity of performance management in your IT organization. Recovering from a failed, initial performance management project in an IT organization is a long, difficult process. Involve your data architect early in any performance management project, especially for IT organizations that are in the early stages of performance failures. Decision makers in your IT organization need accurate performance data if they are to make decisions to improve their IT organization to better 1) align your IT organization to your organizational strategy or mission, and 2) achieve operational excellence in your IT operations, which requires accurate, quality performance data. Essentially, you need to convert data to meaningful information for the decision makers in your IT organization to utilize to continually improve performance, including the development and implementation of SIPs. ITIL takes this concept a step further and considers that your IT organization actually needs to convert data to information but further

evolve information into knowledge and eventually wisdom (data ⇒ information ⇒ knowledge ⇒ wisdom).

Although a number of excellent software tools exist to pull data from disparate parts of your enterprise architecture, you cannot underestimate the organizational resources that must be committed to the capture and reporting of quality data during the initial stages of a performance measurement implementation.

Ensure Your IT Scorecard Is ITIL Conformant

ITIL has become the de facto best practices standard in the IT industry. Woven throughout the various elements of the ITIL lifecycle are performance measures. As you develop an IT scorecard, consider whether the performance measures you are adopting conform with the recommendations around performance measurement of the ITIL framework. A number of consultants and software vendors providing ITIL services list their performance measurement approaches and supporting technology as being ITIL conformant.

There is no magic to your IT scorecard being ITIL conformant. Review the performance measurement components of ITIL. Compare the overall components of your proposed IT scorecard (that is, operational excellence, customer, future orientation, business value) against the ITIL framework and determine whether your IT scorecard is consistent in intent and execution with the ITIL framework. This is a good method to check that your approach to performance management, using tools including your IT scorecard, is consistent with current IT industry best practices. This will enhance the credibility of your performance management approach for your IT organization, both within your IT organization and with your critical customers and broader stakeholders. An ITIL-conformant IT scorecard indicates the IT scorecard is consistent with industry best practices, which is one indicator that an IT scorecard is capturing performance measures consistent with industry practices to use for improved decision making.

How Do You Populate Your IT Scorecard with Individual Measures?

The number of individual performance measures utilized by various IT organizations is almost unlimited. A number of excellent

publications provide comprehensive lists of literally hundreds of individual IT performance measures in common use in industry, including:

- Gartner's *IT Performance Measures Quick Reference Guide*, which captures more than 300 IT performance measures, segmented by operational excellence (196 measures), customer (29 measures), business contribution (31 measures), and future (52 measures)
- Janco Associates's *Metrics for the Internet, Information Technology, and Service Management: A Handiguide*[17]

When you begin development of your initial IT scorecard, the development and selection of the initial overall components of your IT scorecard will heavily drive the selection of individual performance measures for your IT organization to utilize. In the initial stages of your IT scorecard project, your cross-functional team will have to give tremendous upfront thought to what exactly the critical drivers of performance for your organization are and how your IT organization supports execution of these drivers.

Many best practices IT organizations focus on performance measures related to operational excellence. How long was the network down? What is the average time to provision a server? What is the capacity of the infrastructure? These types of operational measures are important, typically measured by existing network tools, and are relatively easy to capture and measure on an ongoing basis.

We also recommend that you focus on developing performance measures against the high-level financial measures of an overall IT organization that are typically in place and measurable. What amount of the organization's overall budget is consumed by IT? How is the IT budget allocated among application development, operation/maintenance, and a variety of infrastructure activities? What are the trends in IT spending?

The performance measurement areas that are more difficult to define and measure effectively are measures related to customer satisfaction, including user orientation, and financial measures related to business value of IT operations to the organization, not just high-level financial measures such as IT spending as a percentage of the organization's overall budget.

Commitment of significant organizational resources to define upfront the necessary performance measures to be captured and reported on for your IT scorecard is a critical success factor for your IT organization. Much care and thought will need to be applied to this effort, and

healthy, spirited debate will need to occur to truly achieve clarity on what performance measures will be most useful for your IT organization to use to continually improve service to your customers. Careful trade-offs will need to be made between the cost and difficulty of tracking and reporting on performance measures versus the benefits to your IT organization from this ongoing effort.

Links to Other ITIL Framework Components

The ITIL framework is a comprehensive body of knowledge of IT leading practices codified into a service lifecycle framework. Every component of the ITIL should be measured. Your IT scorecard and supporting cascading scorecards will need to measure the specific components of the ITIL framework you have decided to adopt for your IT organization:

- The operational excellence component of your IT scorecard should include measurements of critical business processes, including demand, capacity, and availability management.
- The business value component of your IT scorecard should include measurements of service portfolio management, chargebacks, critical financial processes (such as accounting, charging, and budgeting).
- The customer component of your IT scorecard should include service level management, specifically the management of SLAs, and customer satisfaction.
- The future orientation component of your IT scorecard should include many of the components of your service strategy and service design.

Sample IT Scorecard

Figure 6-3 illustrates a notional IT scorecard for an IT organization. This notional scorecard is composed of the three overall components recommended earlier in this chapter: operational excellence, customer, and business value. This notional scorecard is further segmented under each component into four subsets focused on operating elements of your IT organization.

The purpose of this notional IT scorecard is to show how a complete IT scorecard may be presented. Although limited in the number of

	Operational Excellence	Customer	Business Value
Application Development	•Defects per 1000 lines of code •Defects per function point •Applications development productivity	•# of effective client partners •Customer satisfaction •End user satisfaction index	•# of projects delivering expected value •IT involvement index in new applications •% development budget by business objective
Application Maintenance	•% uptime of core applications •Time to implement modifications •# of critical outages	•Level of user satisfaction with IT services •Outcome of focus groups with users •Post acceptance satisfaction	•Maintenance as a % of development budget
Infrastructure	•Average storage capacity utilization •% WAN utilization •Average network capacity utilization	•Score on annual user survey •Corporate Help Desk user satisfaction •Customer satisfaction level by index	•Infrastructure alignment index •Reduction in infrastructure budget from prior year •Alignment to business objectives
Project Management	•% of projects late •% of projects completed within budget •% of projects delivering to scope and schedule	•Project sponsor satisfaction •Users project rating •Project team project evaluations	•# of months since last project portfolio review •% of projects aligned to business objectives •% of projects focused on cost reduction

Figure 6-3 Notional IT scorecard

performance measures in use, it provides a view of how IT performance measures can be grouped both by the BSC components tailored to IT organizations, and by organizational components or focus areas for IT organizations.

Next Steps

The development and implementation of a meaningful performance management framework for your IT organization is challenging but can be accomplished through thoughtful work and commitment. The BSC concepts provide a strong foundation for a performance management framework and can be adapted for use in your IT organization. Performance management is a part of all aspects of your IT organization. You must measure yourself to commit to a culture of CSI, which is a critical success factor for IT organizations going forward. You need to strike a careful balance between the commitment of your organizational resources to performance management and measurable benefits to your organization from its use. In addition, your IT managers and staff must have the required skills to develop, execute and evolve performance management. In the next chapter, we discuss the critical need for IT

organizations to identify both critical skill sets needed to execute current operations, but also to identify future skill sets needed for your IT organization, and develop and execute a plan to obtain these skills.

Endnotes

1. "NYS Project Management Guidebook: Release 2," New York State Office of Technology, Section II: 4 "Performance Measurement," 2003.
2. Office of the Chief Information Officer (OICO), Enterprise Architecture Program (2007), Treasury IT Performance Measures Guide.
3. Ibid.
4. Balanced Scorecard Institute, "What Is the Balanced Scorecard?" http://www.balancedscorecard.org/basics/bsc1.html. Accessed April 16, 2009.
5. John H. Lingle and William A. Schiemann, *Bullseye, Hitting Your Strategic Targets Through High-Impact Measurement* (New York, New York: Simon & Schuster, 1999).
6. Ibid.
7. Ibid.
8. Liz Barnett, "Metrics for Application Development," *Forrester* (May 2, 2005), pp. 1–3.
9. Gartner, "IS Performance Measures Quick Reference Guide." Roswell, Andy. April 6, 2007. www.gartner.com
10. http://en.wikipedia.org/wiki/Operational_excellence
11. E. H. Schein, *Organizational Culture and Leadership*, 3rd ed. (San Francisco: Jossey-Bass, 1985–2005).
12. *American Heritage Dictionary*.
13. BusinessDictionary.com
14. http://en.wikipedia.org/wiki/User_(computing)
15. http://en.wikipedia.org/wiki/End-user_(computer_science)
16. *Houghton Mifflin Dictionary*.
17. Victor Janulaitis, *Metrics for the Internet, Information Technology, and Service Management: A Handiguide* (Janco Associates, 2007). Derived from various templates of Janco Associates, Inc. 2001.

Suggestions for Further Reading

Balanced Scorecard Institute, "What Is the Balanced Scorecard?" www.balancedscorecard.org/basics/bsc1.html.

Barnett, Liz, "Metrics for Application Development," *Forrester*, May 2, 2005.

Gartner, "IS Performance Measures Quick Reference Guide."

IBM Global Services, "Balanced Scorecard: Technique Paper," Version 1.0, July 2001.

Improvement Skills Consulting, *Measuring Process Performance*, 2008.

Lingle, John H., and William A. Schiemann, *Bullseye, Hitting Your Strategic Targets Through High-Impact Measurement*, Simon & Schuster, 1999.

Office of the Chief Information Officer (OCIO), Enterprise Architecture Program, 2007, Treasury IT Performance Measures Guide.

Rooney, Tim, "Applying ITIL Best Practice Principles to IPAM," *BT Diamond IP*, August 2008.

Schein, E. H. *Organizational Culture and Leadership*, 3rd ed., Jossey-Bass, 1985–2005.

Symons, Craig, "The Five Essential Metrics for Managing IT," *Forrester*, April 14, 2008.

Index

B

C

D

E

F

G

H

I

K

L

M

N

O

S

T

U

V

W-Z