

COMMENTARY

Transforming the Balanced Scorecard from Performance Measurement to Strategic Management: Part II

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In a previous paper (Kaplan and Norton 2001b), we described the role for strategy maps and Balanced Scorecards to develop performance objectives and measures linked to strategy. With this paper, we show how organizations use their scorecards to align key management processes and systems to the strategy. We also discuss the relationship of the Balanced Scorecard (BSC) to other financial and cost measurement initiatives, such as shareholder value metrics and activity-based costing, and quality programs. We conclude with suggestions about opportunities for additional research on measurement and management systems.

THE FIVE PRINCIPLES OF A STRATEGY-FOCUSED ORGANIZATION

When asked to describe how the Balanced Scorecard helped them achieve breakthrough performance, executives of adopting organizations continually referred to two words: *alignment* and *focus* (Kaplan and Norton 2001a, Chapter 1). Although each organization achieved strategic alignment and focus in different ways, at different paces and in different sequences, each eventually used a common set of five principles, which we refer to as the Principles of a Strategy-Focused Organization, portrayed in Figure 1.

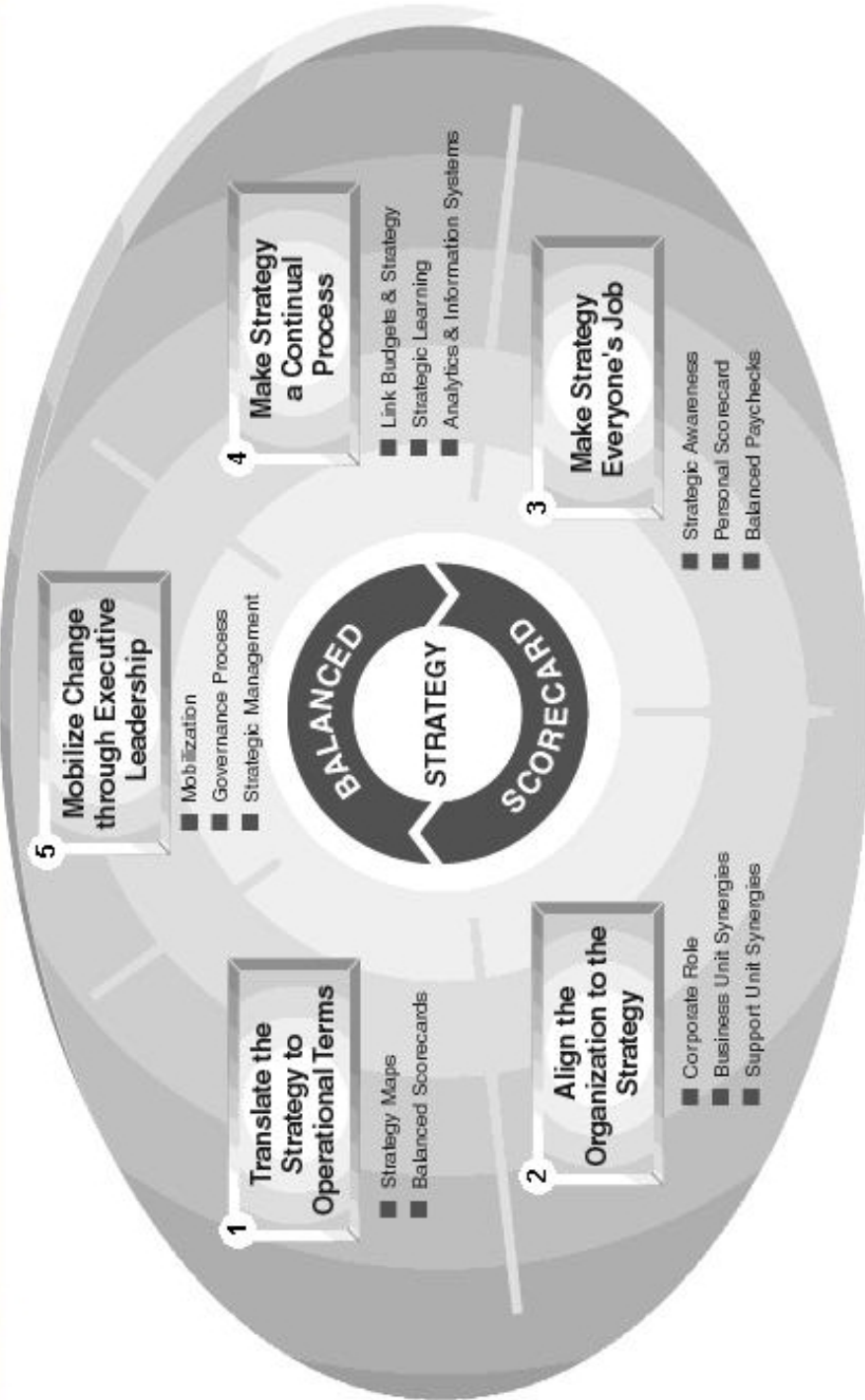
Principle #1: Translate the Strategy to Operational Terms

Organizations translate their strategy into the logical architecture of a strategy map and Balanced Scorecard to specify in detail the critical elements for their growth strategies (Kaplan and Norton 2001b). These create a common and understandable point of reference for all organizational units and employees.

Principle #2: Align the Organization to the Strategy

Organizations consist of numerous sectors, business units, and specialized departments, each with its own operations and often its own strategy. Functional departments, such as finance, manufacturing, marketing, sales, engineering, and purchasing, have

FIGURE 1
The Principles of a Strategy-Focused Organization



Source: Kaplan and Norton (2001a)

their own bodies of knowledge, language, and culture. Functional silos arise and become a major barrier to strategy implementation since most organizations have great difficulty communicating and coordinating across these specialty functions. For organizational performance to be more than the sum of its parts, individual strategies must be linked and integrated. The corporate role defines the linkages expected to create synergy and ensures that the linkages actually occur.

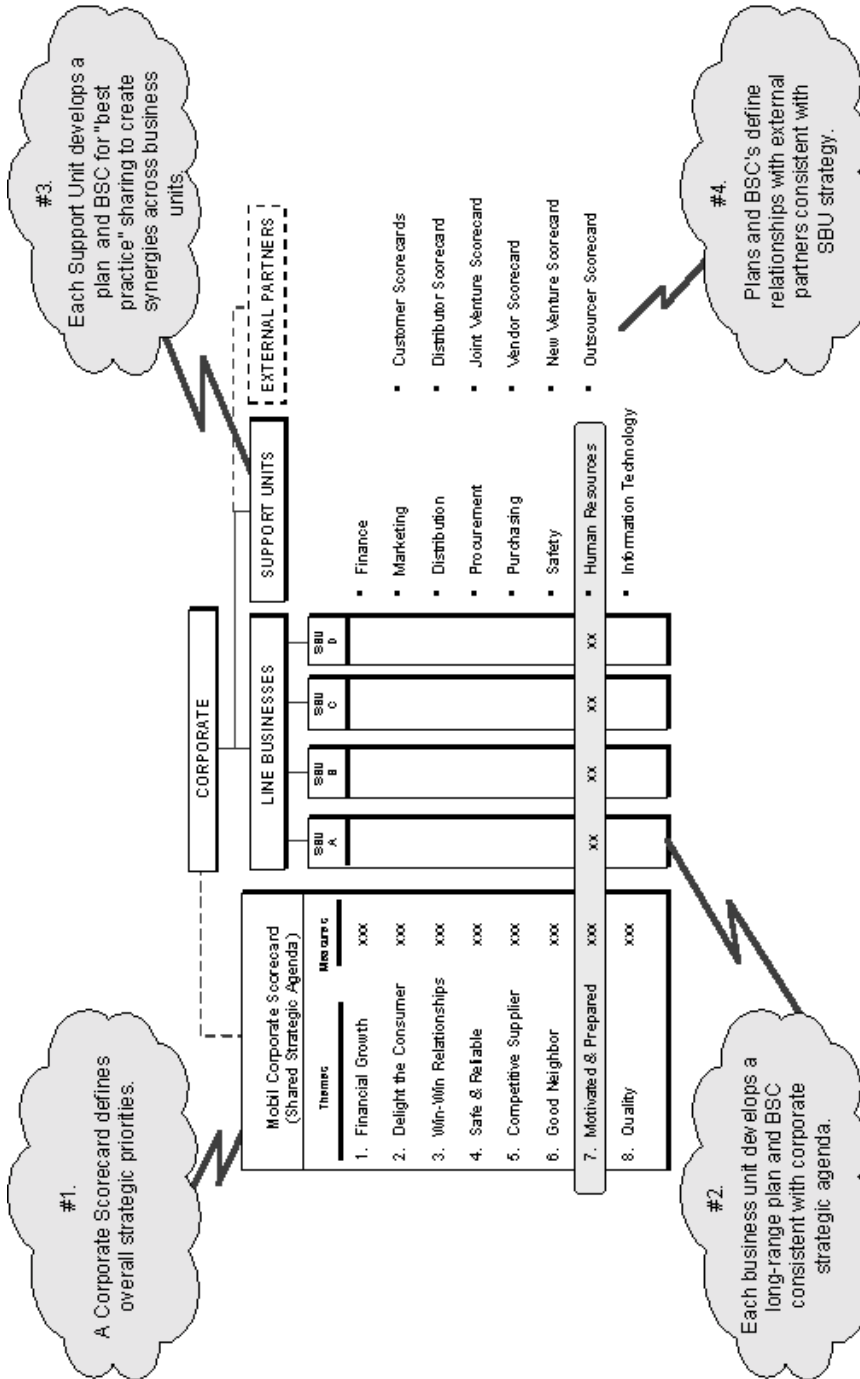
Figure 2 shows the linkages at the Mobil North American Marketing and Refining division (NAM&R). The high-level strategic themes in #1 guide the development of the Balanced Scorecards in the business units in #2, which are either geographic regions or product lines, such as lubricants. Each unit formulates a strategy appropriate for its target market in light of the specific circumstances it faces—competitors, market opportunities, and critical processes—but that is consistent with the themes and priorities of NAM&R. The measures at the individual business-unit levels do not have to add to a divisional measure, unlike financial measures that aggregate easily from sub-units to departments to higher organizational levels. The business-unit managers choose local measures that *influence* but are not necessarily identical to the divisional scorecard measures.

Beyond aligning the business units, strategy-focused organizations must align their staff functions and shared service units, such as human resources, information technology, purchasing, environmental, and finance as in #3 of Figure 2. Often this alignment is accomplished with service agreements between each functional department and the business units. Management and cost accounting textbooks describe how to assign the costs of support departments to production departments and selling units. The scorecard approach is much more comprehensive. In addition to contracting on price or cost, the staff functions and the line business units agree to the menu of services to be provided, including their functionality, quality level, response time, and cost. This service agreement becomes the basis of the Balanced Scorecard constructed by the functional department. The department's customers are the internal business units, the value proposition is defined by the negotiated service agreement, and the financial objectives are derived from the negotiated budget for the department. Next, the department identifies the internal process and learning and growth objectives that drive its customer and financial objectives.

When this process is complete, all the organizational units—line business units and staff functions—have well-defined strategies that are articulated and measured by Balanced Scorecards and strategy maps. Because the local strategies are integrated, they reinforce each other. This alignment allows corporate-level synergies to emerge in which the whole exceeds the sum of the individual parts.

Linkages can also be established across corporate boundaries, as in #4 of Exhibit 2. Several companies constructed Balanced Scorecards to define their relationships with key suppliers, customers, outsourcing vendors, and joint ventures. Companies use such scorecards with external parties to be explicit about (1) the objectives of the relationship, and (2) how to measure the contribution and performance of each party to the relationship in ways other than just price or cost. Sometimes, particularly in governmental settings, scorecards are defined for high-level themes, such as salmon recovery in Washington State and economic development in the City of Charlotte, that encompass multiple departments and government agencies. No one department or agency has complete jurisdiction or ability to influence the desired outcomes. The scorecard for the high-level theme provides the mechanism that engages managers from multiple

FIGURE 2
Aligning the Organization to Its Strategy



Source: Kaplan and Norton (2001a)

departments and agencies to discuss how they can contribute to achieving high-level strategic objectives.

Principle #3: Make Strategy Everyone's Everyday Job

The CEOs and senior leadership teams of adopting organizations understood that they could not implement the new strategy by themselves. They wanted contributions—actions and ideas—from everyone in the organization. The third principle of strategy-focused organizations requires that all employees understand the strategy and conduct their day-to-day business in ways that contribute to the success of that strategy. This is not top-down *direction*. This is top-down *communication*. Senior managers understand that individuals far from corporate and regional headquarters can create considerable value by finding new and improved ways of doing business.

Executives start this process by using the Balanced Scorecard to *communicate* and *educate* the organization about the new strategy. Some observers are skeptical about communicating strategy to the entire organization, feeling that valuable information would be leaked to competitors. Mobil's Brian Baker's response was:

Knowing our strategy will do them little good unless they can execute it. On the other hand, we have no chance of executing our strategy unless our people know it. It's a chance we'll have to take.

Companies can educate the employees about surprisingly sophisticated business concepts. To understand the scorecard, employees learn about customer segmentation, variable contribution margin, and database marketing. Instead of assuming that the workforce is incapable of understanding these ideas, managers make concerted efforts to educate employees at all levels of the organization about key strategic components.

Peter Drucker (1954) introduced management-by-objectives (MBO) nearly 50 years ago. But Drucker's excellent concept was implemented poorly in practice, leading to MBO in most organizations focusing on a myriad of local measures and initiatives not linked to high-level organizational objectives or coordinated with each other. The Balanced Scorecard enables personal objective setting to be integrated across the organization and linked to high-level strategic objectives.

Companies communicate their strategy and scorecard *holistically*. Instead of cascading objectives through the chain of command, as is normally done, they communicate the complete strategy down to individual employees. Individuals and departments at lower levels are challenged to develop their own objectives in light of the broader priorities; in some cases, personal scorecards are used to set *personal objectives*. Many pleasant surprises result from this process as individuals find new ways to do their jobs and identify areas outside their normal responsibilities to which they can contribute.

Finally, most organizations link *incentive compensation* to the Balanced Scorecard, typically after managing with the scorecard for a year. The executives must be confident that they are using sensible measures, have valid and reliable data collection processes to support the measures, and have measures not easily manipulated. Once they become confident about their measures and data, they turn the powerful compensation lever on. Brian Baker at Mobil declared:

People got that scorecard out and did the calculations to see how much money they were going to get. We could not have gotten the same focus on the scorecard if we didn't have the link to pay.

Gerry Isom, CEO of Cigna Property and Casualty agreed:

It would be hard to get people to accept a totally different way of measurement if you don't reinforce that change through incentive compensation.

A study of 214 companies reports that 88 percent of responding companies considered the use of Balanced Scorecard measures linked to reward systems to be effective (Mercer & Co. 1999).

Incentive systems based on the Balanced Scorecard vary widely. Some companies, such as Mobil, deploy a team-based incentive system, using business-unit and division scorecards as the basis for rewards. Others use a combination of business-unit, company, and individual performance rewards. Compensation can be based on up to 25 strategic measures. Instead of promoting confusion, as many fear, the scorecard compensation systems heighten the employees' interest in all components of the strategy and further their demand for knowledge and information about scorecard measures. Strategy becomes everyone's everyday job because employees now understand the strategy and are motivated to make it succeed.

Principle #4: Make Strategy A Continual Process

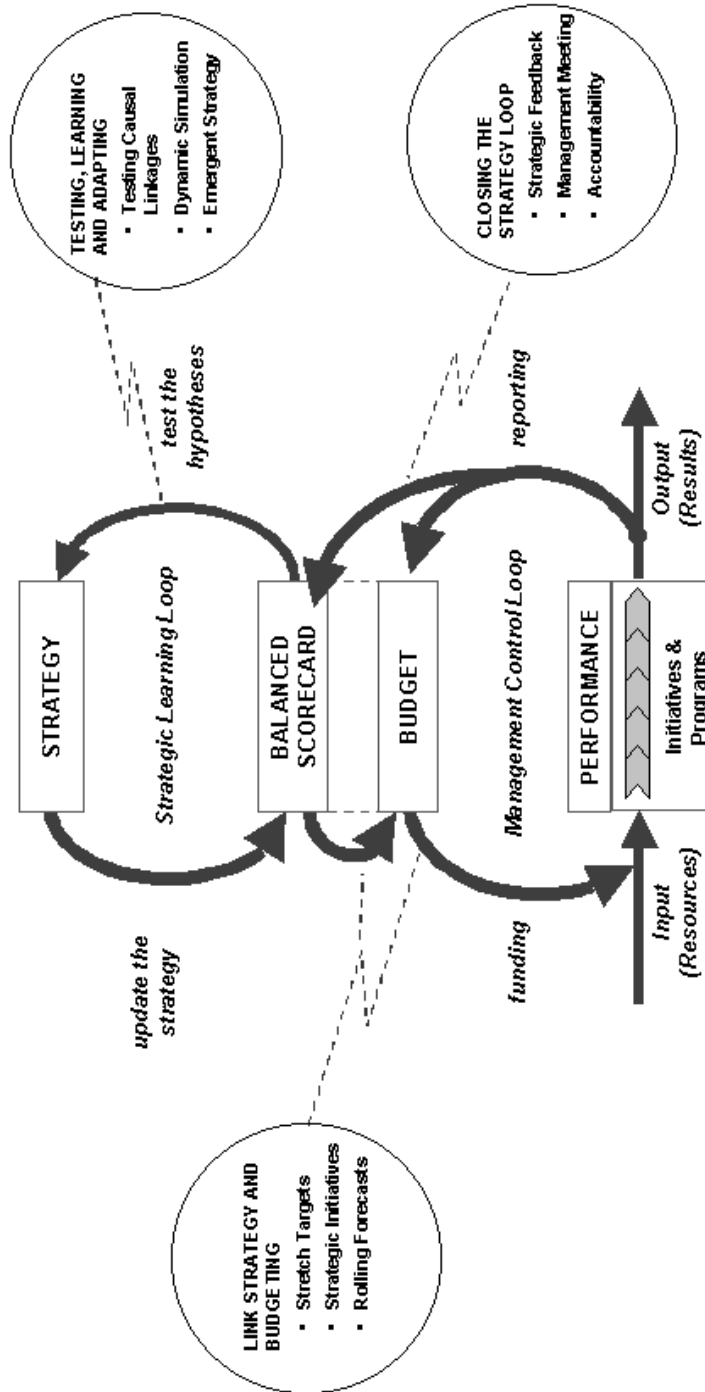
Most organizations build their management processes around the budget and operating plan. The monthly management meeting reviews performance vs. plan, discusses variances from past performance, and requests action plans for dealing with short-term variances. There is nothing wrong with this, *per se*. Tactical management is necessary. But in most organizations that's all there is. Besides the annual strategic-planning meeting, no meeting occurs where managers discuss strategy. We surveyed participants at conferences and learned that 85 percent of their management teams spend less than one hour per month discussing strategy.

The adopting BSC companies introduce a new "double-loop process" to manage strategy. The process integrates the management of tactics with the management of strategy, using three important processes, as depicted in Figure 3.

First, organizations *link strategy to the budgeting process*. They use the Balanced Scorecard as a screen to evaluate potential investments and initiatives. At Chemical Bank, where more than 70 different requests for funding were submitted, executives found that over 50 percent of the proposed initiatives had no impact on any scorecard measure. These were discarded as "nonstrategic." They also found that despite having more than three times as many proposed initiatives as scorecard measures, about 20 percent of the measures on the scorecard had no initiatives associated with improving them. A new process for managing strategic initiatives emerged that included authorizing funds for strategic initiatives within the annual budget process.

Companies usually have an *operational budget* that authorizes spending for producing and delivering existing products and services, and marketing and selling them to existing customers. They now introduce a *strategy budget* that enables them to develop entirely new capabilities, reach new customers and markets, and make radical improvements in existing processes and capabilities. This distinction is essential. Just as the Balanced Scorecard attempts to protect long-term objectives from short-term suboptimization, the budgeting process must protect the long-term initiatives from the pressures to deliver short-term financial performance.

FIGURE 3
Making Strategy a Continual Process



The second step to make strategy a continual process introduces a *simple management meeting* to review strategy. As obvious as this step sounds, such meetings did not exist in the past. Now, management meetings are scheduled on a monthly or quarterly basis to discuss the Balanced Scorecard so that a broad spectrum of managers comes together to discuss the strategy. A new kind of energy is created. People use terms like “fun” and “exciting” to describe the meetings. One senior executive reported that the meetings became so popular, there was standing room only and he could have sold tickets to them.

Information feedback systems change to support the new management meetings. Initially, these systems are designed for the needs of the executive team. But organizations can go further by creating *open reporting* in which performance results are made available to everyone in the organization. Building upon the principle that “strategy is everyone’s job,” they empower “everyone” by giving them the knowledge needed to do their jobs. At Cigna Property & Casualty, a first-line underwriter sees performance reports before a direct-line executive if she happens to be monitoring the feedback system. This creates a set of cultural issues that revolutionize traditional, hierarchical approaches to information and power.

Finally, a *process for learning and adapting the strategy* evolves. The initial Balanced Scorecard represents hypotheses about the strategy; at time of formulation it is the best estimate of the actions expected to create long-term financial success. The scorecard design process makes the cause-and-effect linkages in the strategic hypotheses explicit. As the scorecard is put into action and feedback systems begin their reporting on actual results, an organization can test the hypotheses of its strategy. Some, like Brown & Root and Sears, did the testing formally, using statistical correlations between measures on the scorecard to determine whether, for example, employee empowerment programs were increasing customer satisfaction and improved processes. Others, like Chemical Bank, tested the hypotheses more qualitatively at meetings where managers validated and refined the programs being used to drive service quality and customer retention.

Still others use the meetings to search for new strategic opportunities that were not currently on their scorecard (see Mintzberg [1987] and Hamel [2000] for discussions of emergent strategy). Ideas and learning emerge continually from within the organization. Rather than waiting for next year’s budget cycle, the priorities and the scorecards are updated immediately. Much like a navigator guiding a vessel on a long-term journey, constantly sensing the shifting winds and currents and constantly adapting the course, the executives of the successful companies use the ideas and learning generated by their organization to fine-tune their strategies. Instead of being an annual event, strategy formulation, testing, and revision became a continual process.

Using the Balanced Scorecard in this manner matches what Bob Simons (1995, Chapter 5; 2000, Chapter 10) describes as an interactive control system, characterized by four defining characteristics:

- Information in the control system provides an important and recurring agenda for senior management.
- The system demands frequent and regular attention from operating managers at all levels of the organization.
- Data generated by the system are interpreted and discussed in face-to-face meetings of superiors, subordinates, and peers.

- The system is a catalyst for the continual challenge and debate of underlying data, assumptions, and action plans.

Simons' research reveals how managers choose one system, such as the budget system, the revenue reporting system, or the project management system, and make it their interactive system. After that research was conducted, the Balanced Scorecard emerged to provide a general template for an organization's interactive system. Rather than having to choose one from the many existing systems, executives can design their own interactive system to focus intensely on strategy and its implementation. And the process of constructing their customized interactive system provides the additional benefit of team building and gaining coherence and commitment within the senior management team for the strategy. This leads naturally to the discussion of the fifth principle to create a strategy-focused organization.

Principle #5: Mobilize Leadership for Change

The first four principles focus on the Balanced Scorecard tool, framework, and the processes to support it. To become truly strategy-focused, however, requires more than processes and tools. Ownership and active involvement of the executive team is the single most important condition for success. Strategy requires change from virtually every part of the organization. Strategy requires teamwork to coordinate these changes. Strategy implementation also requires continual focus on the change initiatives and on the performance against targeted outcomes. If those at the top are not energetic leaders of the process, change does not occur, strategy is not implemented, and the opportunity for breakthrough performance is lost.

A Balanced Scorecard program starts with the recognition that it is not a "metrics" project; it's a change project. Initially the focus is on *mobilization* and creating momentum, to get the process launched. Once mobilized, the focus shifts to *governance* to install the new performance model. Finally, and gradually over time, a new management system evolves, a *strategic management system* that institutionalizes the new cultural values and processes into a new system for managing. Convergence to the new management system can take two to three years.

In the mobilization phase, the leaders must make the organization understand why change is needed; the organization must be unfrozen. Kotter (1996) describes how transformational change begins at the top and with three discrete actions by the leaders: (1) establish a sense of urgency; (2) create the guiding coalition; and (3) develop a vision and a strategy. The leaders of successful Balanced Scorecard organizations clearly followed this mode. Several of the adopting companies were experiencing difficult times. The obvious threat of failure and loss of jobs was a motivator that created receptivity for change. But the role for the Balanced Scorecard to drive change and breakthrough performance is not limited to distressed or failing companies. Often, executives at companies currently doing well create stretch targets to ensure that the organization does not become complacent. They use the Balanced Scorecard to communicate a vision for dramatically better performance than the present. Executive leadership makes the need for change obvious to all.

Once the change process is launched, executives establish a *governance* process to guide the transition. This process defines, demonstrates, and reinforces the new cultural values to the organization. Breaking with traditional power-based structures is important. The creation of strategy teams, town hall meetings, and open communications are all components of the new management approach.

Embedding the new strategy and culture into a new management system, however, creates a risk that the organization fails to adapt to future shifts in opportunities and threats. Good executives recognize that strategies must continually evolve to reflect changes in the competitive landscape. The art of the leader is to delicately balance the tension between stability and change.

This concludes the summary of the five principles to become strategy-focused. We now turn to the relationship of the BSC to other improvement initiatives and to promising areas of future research.

RELATIONSHIP OF BSC TO OTHER ORGANIZATIONAL IMPROVEMENT INITIATIVES

The BSC emerged in the 1990s just as two other approaches—activity-based costing and shareholder value management—were being advocated as measurement systems to help managers improve organizational performance. The three approaches do not compete with each other; in fact they are highly compatible and while each can be implemented independently of the others, organizations will get the greatest benefit from integrating all three.

Shareholder Value Management

Shareholder value metrics, such as residual income, economic value-added, and shareholder value-added (Myers 1996, 1997), address two defects in traditional financial performance measurement: the overinvestment problem when only net income or earnings is used as the aggregate performance measure, and the underinvestment problem when a ratio—such as return-on-investment or return-on-equity—is used. We encourage managers who operate under a shareholder value discipline to use that metric as their overarching measure in the financial perspective. Within the financial perspective of the BSC, the shareholder value metric is decomposed into the subobjectives of cost reduction, improved asset productivity, and revenue growth (see strategy map template, Kaplan and Norton 2001b, Figure 2). Customer objectives define the strategy for revenue growth.

Managers operating only with shareholder value metrics, and without the more comprehensive BSC measurement framework, often take a low-risk and short-term path—reduce costs and dispose of underutilized assets—to achieve their financial improvements. Growing revenues typically takes longer, involves more risk, and requires more near-term spending to develop new products, services, and markets, enhance customer relationships, improve service, and increase employee capabilities. Nothing in shareholder value management is incompatible with revenue growth. But the financial metrics in a shareholder value approach cannot serve as a vehicle for articulating a revenue growth strategy and the complementary processes for achieving it. The BSC complements shareholder value management by defining the drivers of revenue growth—explicit objectives and measures for targeted customers, the differentiating customer value proposition, the internal business processes for innovation and enhanced customer relationships, and the needed infrastructure investments in people, systems, and organizational alignment. It also helps executives manage the trade-offs between short-term productivity improvements and long-term sustainable revenue growth.

Activity-Based Costing

Activity-based costing (ABC) was developed to correct another defect in financial

systems—the inability of traditional costing systems to identify the drivers of indirect and support costs (Kaplan and Cooper 1998). ABC operates by relating organizational spending to activities and processes that support the design, production, marketing, and delivery of products and services to customers.

Operational Linkage

The first linkage between ABC and the BSC occurs in the operational measures of the BSC's internal process perspective. Three parameters—cost, quality, and time—usually define the operating performance of any process. Quality and time are relatively easy to measure since they are based on physical measurements. Cost, however, is an analytic concept that cannot be measured by a stopwatch or a laser-gauging instrument. Only with an ABC model can organizational expenses be accurately traced to processes of product development, marketing and sales, manufacturing, distribution, and service delivery.

Customer Profitability Linkage

A second linkage occurs when an ABC model is used to measure the profitability of individual customers (Kaplan and Cooper 1998, Chapter 10). The BSC customer perspective typically includes customer outcome measures such as acquisition, satisfaction, retention, account share, and market share. But companies also need to measure whether their loyal, satisfied customers are profitable. Balancing measures such as customer profitability or percentage of unprofitable customers help managers ensure they are not improving their customer measures at the expense of high-level financial profitability measures.

Budgeting Linkage

A third linkage arises when the ABC model is used for activity-based budgeting: combining information on the forecasted volume and mix of products and services with anticipated activity and process efficiencies to construct a bottom-up budget for forthcoming periods (Kaplan and Cooper 1998, Chapter 15). With the BSC providing the management process for defining the strategic budget, and activity-based budgeting used to develop the operational budget (see discussion of these two budgets in Principle #4 above, "Making Strategy a Continual Process"), managers have powerful analytic tools for their budgeting processes.

ABC can also be combined with shareholder value management by applying ABC principles to assign assets to activities and then to cost objects. This enables capital costs and residual income to be calculated at the individual product and customer level.

Getting Started

Thus, shareholder value metrics, ABC, and the BSC play complementary roles. People often ask, "My organization has limited capacity for these major change initiatives. I can't do all three at the same time. Which should I do first?"

1. If the biggest problems facing an organization are large, growing indirect and support expenses, and inefficient processes, then implement ABC first. It gives managers a deep understanding of their cost structure, helps them to identify the most costly and nonvalue-added processes, and reveals how much of the growth

in support resources can be reversed by taking appropriate actions with inefficient processes, complex products, or demanding customers.

2. If the organization has a low return on investment, a weak financial structure, a low sales-to-asset ratio, and high levels of working capital, then start with shareholder value management. The shareholder value approach highlights the inefficient use of capital and provides explicit incentives for managers to divest underperforming assets and increase the utilization of the remaining assets.
3. If the organization wishes to implement a major change in its strategy, or has just been restructured from a centralized, functional organization to a decentralized, customer-focused one, then start with the BSC. No other tool facilitates major changes in strategy better or faster.

Organizations ultimately benefit from all three measurement approaches: the financial and investment discipline that comes from adopting a shareholder value approach; the deep understanding of cost structure and cost drivers that activity-based costing provides; and the integrated framework for managing strategy, including value and revenue drivers, that the Balanced Scorecard delivers.

Total Quality Management

Many companies also engage in quality initiatives. The causal linkages in a BSC strategy map enhance quality programs by articulating the two ways that process improvements can link to strategic outcomes. First, quality improvements in the internal perspective should improve one or more outcome measures in the customer perspective; second, quality improvements can lead to cost reduction, an outcome in the financial perspective. The BSC enables managers to describe how they expect to translate quality improvements into higher revenues, fewer assets, less people, and lower spending.

The BSC process also guides organizations to redeploy their scarce resources of people and funds away from nonstrategic process improvements and toward those processes and initiatives most critical for implementing the strategy to achieve breakthrough customer and financial performance. In addition, building a Balanced Scorecard often reveals entirely new processes at which the organization must excel. Rather than just improving existing processes, the scorecard process focuses quality initiatives on improving the performance of these newly identified processes.

RESEARCH AGENDA ON ORGANIZATIONAL PERFORMANCE MANAGEMENT

During the past ten years, the Balanced Scorecard evolved from a performance measurement system to an organizing framework for successful strategy implementation. Changing what is measured profoundly affects the behavior of managers and employees, and helps organizations deliver dramatically improved performance. This is good news for accounting researchers. Accountants are in the measurement business and the experience of adopting companies reaffirms that *measurement matters*. Moreover, the experience affirms that *management control systems matter*. It's not just *what* is measured but *how* the measurements are used that determines organizational success. The impact of the scorecard is reinforced when it is used in a multiplicity of management processes: compensation (the most studied process by accounting researchers); alignment of diverse organizational units to a common strategy; communication and education; setting individual objectives; linking strategy, planning, resource allocation, and budgeting; setting

targets; exploiting information technology for new reporting presentations; conducting management meetings interactively to promote testing, learning, and adaptation; and senior leadership's use of measurement to drive organizational change. All these processes can be studied to assess their individual and collective effectiveness.

Some good empirical work tests the causal linkages that underlie the construction of strategy maps (Ittner and Larcker 1998; Banker et al. 2000). Interesting experimental work assesses how individuals respond to reports containing financial and nonfinancial data (Lipe and Salterio 2000; Swain et al. 1999). But these are only the beginning of promising research initiatives on performance measurement and management.

Analytic research can expand beyond contracting issues to address how synergies—nonlinear returns—are created when diverse individuals do their tasks in ways that are in phase with and reinforce each other. The successful BSC implementers did not hire new, more skilled employees. They did not work their employees harder or longer. They achieved the benefits by having their existing employees focus and align their efforts around a common strategy. Understanding how measurement yields nonlinear performance returns by coordinating and focusing employees' effort could be fertile ground for analytic modeling.

Empirical and experimental research can explore several important issues. How can targets with comparable degrees of difficulty be established across diverse business and shared service units? Mobil adopted a process they called "leveling" to put all units on a level playing field for rewards. It called for active involvement of senior staff specialists and managerial peers to review, challenge, and eventually ratify the targets proposed by decentralized units. The form of the reward is also of interest. Mobil's previous policy rewarded managers who achieved their targets, but gave zero rewards when performance fell short of targets. The new policy was a continuous reward function that increased with the degree of difficulty of the targets. As the CEO stated, "I prefer to give a better rating for a manager who stretches for a target and falls a little short, than to someone who beats an easy target." Just how to implement such a process in practice, of course, is a nontrivial task for which additional research could certainly be beneficial. Analytic schemes already exist for rewarding the achievement of stretch targets (Kaplan and Atkinson 1998, 773–780), but our experience with implementing these schemes in practice is quite limited.

The visibility of a manager's ability and effort is heightened when the BSC is used as an interactive control system. A Mobil senior executive claimed, "The process enables me to see how managers think, plan, and execute. I can see the gaps." Such increased observability of managers' performance allows companies to use subjective rewards based on ability and effort, not the second-best approach of rewarding only on results. Again, empirical and experimental research can investigate the effectiveness of subjective rewards based on such increased observability. How well are people making subjective evaluations and judgments? What kind of subjective judgments can we confidently allow individuals to make and in what circumstances?

Many organizations obtain substantial commitment and contributions from their employees without introducing incentive compensation based on BSC measures. Individuals want to be part of and contribute to a successful organization. Without the guidance of a BSC, however, employees are often just given a job to do, not an opportunity to find new and better ways to help the organization achieve its strategic objectives. Thus, research on the mix between intrinsic and extrinsic motivation can be effectively conducted with the communication and personal goal-setting processes of the BSC management system.

The multiplicity of management processes required to create strategic focus in an organization can be studied. Are all critical? Is success a multiplicative model in which the performance breakthroughs come from all processes being implemented effectively? Or can some processes be effective and deliver significant results without being reinforced by others? This research will likely require intense field research, probably by studying an implementation in a multi-unit organization, where different units adopted different aspects of the BSC management system. For example, some units might have implemented all five principles of a strategy-focused organization, while others did only one or two. How did this affect the resulting performance of all these units?

During the past ten years, many organizations of all types and in all geographic areas adopted performance management systems that use a mixture of financial and nonfinancial metrics. In these two papers, we present a framework that describes the measurement and management systems of successful organizations we observe in practice. With the widespread availability of organizational implementations and a framework to describe how the implementations were performed, accounting researchers can now begin a systematic research program, using multiple research methods, to explore the key factors in implementing more effective measurement and management systems. Such a systematic exploration provides a valuable complement to the individual case studies to be produced in the years ahead.

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