



Sustainability and the Balanced Scorecard: Integrating Green Measures into Business Reporting

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PRACTICES THAT ARE GOOD FOR THE ENVIRONMENT AND SOCIETY MAY APPEAR TO HAVE A NEGATIVE IMPACT ON CORPORATE PROFITABILITY, BUT USE OF THE BALANCED SCORECARD CAN RESULT IN A CLEARER PICTURE OF THE RELATIONSHIP AMONG SUSTAINABLE PRACTICES, CORPORATE STRATEGIES, AND PROFITABILITY. THIS ARTICLE EXPLORES THREE WAYS THAT SUSTAINABLE PRACTICES CAN BE INCORPORATED INTO THE BSC AND DISCUSSES ISSUES THAT SHOULD BE CONSIDERED WHEN SELECTING SUSTAINABILITY-RELATED MEASURES, TARGETS, AND GOALS. IT ALSO EXAMINES WAYS TO ENHANCE BOTH INTERNAL AND EXTERNAL REPORTING OF SUSTAINABILITY-RELATED PERFORMANCE.

Adopting green operating practices is certainly good for the environment, yet the implications of such practices for a business's profitability may be viewed as both positive and negative. On one hand, by contributing to product differentiation in the marketplace and enhancing organizational image to investors and customers (both current and potential), green practices may increase a company's profitability. On the

other hand, green practices may actually reduce profitability because of extra costs that result from implementation and continuation of sustainable practices. For example, installing solar panels on a building may lower monthly electricity bills, but, concomitantly, the reduced electricity bills may be more than offset by the high purchase and installation costs associated with the panels. In the current economic downturn, higher costs are particularly difficult to justify unless a company can

demonstrate that they help increase revenues or promote corporate strategies. To further complicate matters, sustainability measures often are quantitative (such as tons of greenhouse gas generated) but not monetary, making them difficult to integrate into traditional financial analyses in a meaningful fashion.

One way to address these conflicting issues is to align sustainability measures with corporate strategies through the balanced scorecard (BSC), which provides a framework for integrating nonfinancial measures into corporate operations and assessments. Through the BSC, companies can delineate the relationship between sustainability objectives and outcomes with corporate strategy and profitability.¹ By integrating sustainability measures into business practices and by clearly linking an organization's competitive strategy to its green outcomes, the BSC clarifies the relationship between sustainability outcomes and profitability/shareholder interests.

DEFINING SUSTAINABILITY

The sustainability concept now runs rampant in business literature, but, unfortunately, there is no agreed-upon definition of sustainability or its underlying tenets.² As Richard Holledge observed in the *Financial Times*, Googling the phrase *sustainable development* (SD) showed 26 definitions “littered with buzz words such as ‘preservation,’ ‘eco-system,’ ‘biological system,’ ‘resource base,’ and ‘social equity.’”³ Still, many business managers would agree that, at a minimum, sustainable business operations should encompass a variety of broad-based practices and processes that are environmentally responsible from cradle to grave. In other words, “sustainable” or “green” practices will be found throughout the operations of a business. These practices can be included in the design features of an organization's buildings, vendor selection in the supply chain, production of goods and provision of services, and packaging features and distribution elements of those products and services, and the practices will be a significant consideration in a product's ultimate disposal. Sustainable business practices are holistic, life-cycle practices that must be assessed over the long run, not the more traditional short run (see Figure 1).

Even when the general cradle-to-grave approach is

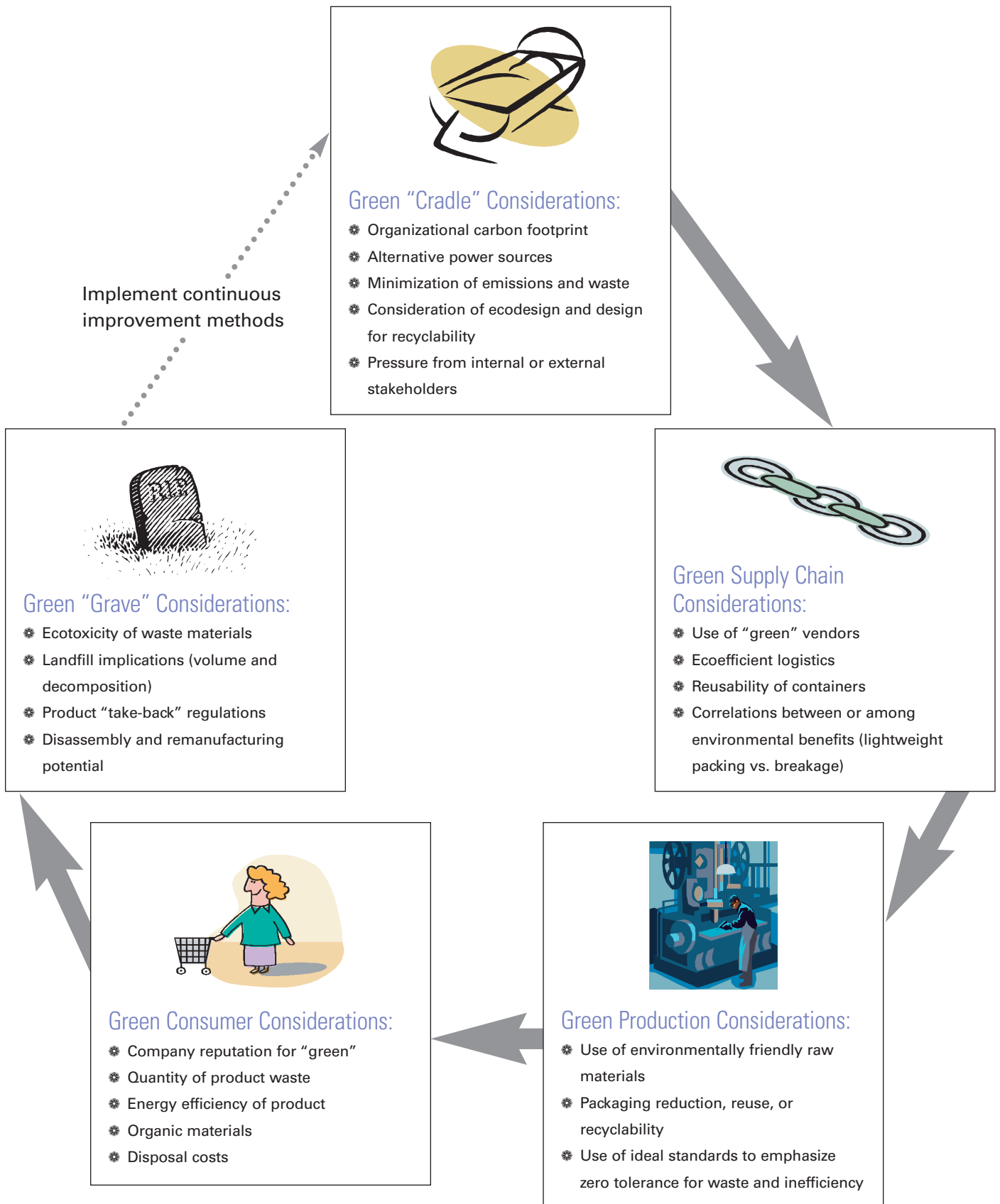
agreed upon, an organization should choose its approach to sustainability before starting to prepare a BSC. Some companies may opt to focus only inward, seeing “sustainable practices” as focusing exclusively on environmental issues such as water use and tons of materials recycled. Other firms will elect to view sustainability both internally and externally: These firms see “sustainability” as a three-legged stool encompassing practices that are economically, environmentally, and socially responsible.⁴ Such a pre-implementation process means that sustainable practices will be organizationally unique and highly individualized. Inclusion of social responsibility in the sustainability definition, for example, requires that a multitude of new factors be assessed and measured ranging from employee issues (such as diversity, health, and safety) to customer issues (such as product labeling and consumer privacy) to societal issues (such as philanthropy and community well-being).

THE BALANCED SCORECARD

“What gets measured, gets managed” is an old accounting saying that remains true today. Although income statements, balance sheets, and other traditional accounting reports are useful to stockholders, potential investors, and analysts, such financial reports with their aggregated figures and focus on historical transactions are often of little use to internal managers. Further, traditional reports only indirectly measure the effectiveness of corporate strategy and can leave managers in the dark about whether a specific strategy has been implemented successfully.

Although the past may be helpful in predicting the future, financial accounting metrics are lagging indicators that can provide insights into the effectiveness of previous strategies and decisions yet limit managers' abilities to anticipate future events—especially when the future is fraught with uncertainty and change. In contrast, nonfinancial metrics, such as customer satisfaction and organizational innovation, are considered leading indicators that are better predictors of future operational results. The BSC combines nonfinancial and financial measures in the internal corporate reporting process so that managers can assess the efficacy of strategic plans and actions.

Figure 1: **Cradle-to-Grave Approach**



The BSC typically reflects four interrelated perspectives of a company:

- ◆ Financial,
- ◆ Customer,
- ◆ Internal business processes, and
- ◆ Learning and growth.

Each perspective includes a series of performance measures, targets, and goals that reflect the firm's long-term strategies. The financial perspective takes the viewpoint of company shareholders and typically uses traditional financial measures such as operating cash flows, return on investment (ROI), and changes in operating income over time.

The customer perspective addresses product and firm differentiation strategies as well as value creation from the viewpoint of the organization's client base. The customer perspective includes nonfinancial measures such as market share, consumer satisfaction trends, and product or service delivery time—all considered important leading indicators of future economic success.

The internal business processes perspective includes measures of the efficiency and effectiveness of the firm's operations. This perspective frequently includes nonfinancial measures of product and service quality, production or performance cycle time, and process quality yields.

The learning and growth perspective focuses on the creation of organizational value through employees and innovative practices. Nonfinancial metrics for this perspective may relate to employee turnover, employee cross-training and skill levels, patents applied for and received, and other product development indicators.

Results of each perspective ultimately are reflected in the financial perspective. Only by succeeding at satisfying customers, optimizing internal processes, and remaining innovative will a company ultimately succeed financially. As Robin Menzies wrote in *Accountancy Ireland*, companies are recognizing that their ability to generate profits may hinge in part “upon their responses to the challenges of a carbon-constrained world and an array of other issues on the sustainability agenda... corporate leaders now see these initiatives as investments in opportunities to operate more efficiently and

secure a dependable supply chain.”⁵

INCLUDING SUSTAINABILITY MEASURES IN THE BSC

Once a company has established its approach to sustainable operations, management next must decide on the manner in which the sustainable operations will be reported and assessed using the BSC. Options for incorporating sustainability into the BSC include:

1. Adding a fifth perspective to the BSC,
2. Developing a separate sustainable balanced scorecard (SBSC), and
3. Integrating the measures throughout the four perspectives.

Option 1: Adding a Fifth Perspective to the BSC

Adding an additional perspective to the BSC may be the simplest approach for companies that want to emphasize sustainability as a key corporate value or a critical strategy. The sustainability perspective consists of social and environmental performance indicators that link with the other four BSC dimensions and highlight the importance of social, environmental, and economic responsibility as a corporate goal.⁶

As originators of the BSC, Robert S. Kaplan and David P. Norton pointed out that a company-specific implementation of a BSC may involve adding or renaming a perspective. The use of a separate sustainability perspective, however, is somewhat controversial among researchers in the field. Proponents point out that linking sustainability measures to a firm's economic well-being and strategies may be difficult or even impossible, in part because market-based prices for goods and services may not fully reflect environmental and social activities.⁷ Thus, having a stand-alone category would allow management to establish less-definitive measurements without compromising organizational aggregation. In contrast, isolating sustainability measures in a separate perspective might weaken environmental initiatives by not providing clear ties to the other perspectives and to corporate strategies. Such a lack of clarity, in turn, could weaken management's commitment to sustainable business practices. This fifth-perspective approach could provide more *visibility* but not necessarily increased importance to the sustain-

ability aspects of corporate management.⁸ Although it would enhance the status of sustainability for the company, this approach is typically found only in companies with high-profile exposure to sustainability issues.⁹

Option 2: A Sustainability Balanced Scorecard

The second approach to including sustainability measures in the BSC lies in the design and implementation of a separate sustainability balanced scorecard. A separate SBSC is appropriate for many companies, such as those that have no existing BSC but want to measure or integrate sustainability without the disruption and cost involved in adopting a full-scale BSC. An SBSC may be equally appropriate for companies that already have functioning BSCs and do not want to change them. A separate SBSC also can be used by companies that want to emphasize corporate sustainability as a key value or critical strategy without revising the original BSC format.

One suggestion is that an SBSC include the following four perspectives: sustainability, stakeholders, processes, and learning.¹⁰ The sustainability perspective would emphasize the triple bottom line of economic prosperity, environmental quality, and social justice.¹¹ The stakeholder perspective would incorporate measures of business ethics, labor practices, and impact on society; the processes perspective would focus on specific organizational internal and external processes, products, tools, and systems; and the learning perspective would stress organizational synergy, training, and research and development.¹²

One strength of the SBSC is that a well-defined corporate sustainability strategy is not essential to its development. In fact, SBSC implementation actually can be used to develop a sustainability strategy.¹³ A potential drawback of this approach, however, is similar to that of having a separate sustainability perspective: The free-standing nature may fail to help the company tie sustainability directly into corporate strategy.

Option 3: Integrating Sustainability Measures throughout the Four Perspectives

Ideally, sustainability measures should be woven throughout day-to-day operations, and integrating sustainability measures into the traditional BSC perspec-

tives can be one way to achieve this goal. Integration indicates that management recognizes there are cause-and-effect linkages between corporate strategies and sustainability efforts. As such, management has to both define the metrics that are important in measuring progress toward organizational sustainability objectives and understand how sustainability progress (or lack thereof) will affect the organization's success or failure. Incorporating the new measures into the existing perspectives has the added advantage of allowing the measures to be seen as fundamental to day-to-day operations and as central to the firm's financial well-being as customer satisfaction, manufacturing cycle efficiency, and patent-generating research and development.

The integrated approach works well for companies that have a BSC in place and are willing to evolve that scorecard to reflect sustainability practices. Sustainability metrics can be added to or substituted for some existing measures, and no major changes to the BSC structure or reporting are likely to be required. Integration is also useful for companies that are in the BSC development stage and believe it is necessary to highlight sustainable development practices. Such companies will readily be able to cohesively incorporate sustainability and more traditional measures.

The integration method also works well for companies that have adopted a more all-encompassing definition of sustainable practices that includes environmental, health, and social aspects. Such companies may find that, because of the depth of focus, the process of integrating into the four traditional BSC perspectives is relatively seamless. Environmental measures often are readily amenable to the internal business processes perspective, health measures to the learning and growth perspective, and social measures to the customer perspective. Because the measures become part of day-to-day operations that are, in turn, linked to the firm's financial success, companies may be less likely to drop sustainable measures in times of financial downturns.¹⁴

Integration of sustainability measurements can range from a partial approach, in which only a few sustainability indicators are added into some of the perspectives (often internal business processes or customer), to a

Table 1: **BSC Measurement Selection Considerations**

In selecting measurements for the balanced scorecard, make certain that:

1. There is an underlying objective for the measurement.
2. Measurement terminology is defined and used consistently throughout the organization.
3. Information needed for the measurements is obtainable.
4. The measurement will create behavior that is in concert with organizational goals and objectives.
5. While there will likely be a combination of lagging and leading indicators, leading indicators are more appropriate to help predict how the organization will perform in the future.
6. The measurements should be used to track performance trends.
7. Appropriate benchmarks and targets are identified.

comprehensive approach, in which sustainability issues are thoroughly integrated throughout all of the BSC's dimensions. Companies should seriously consider the level of integration before adopting the measures: The partial approach runs the risk of having minimal effects on corporate sustainability practices and outcomes, and the comprehensive approach requires a commitment to sustainability that many companies may be unable to make because of a lack of resources or time or a clash with existing corporate culture.¹⁵

DEVELOPING SUSTAINABILITY METRICS

When fully implemented, the BSC illustrates the relationships among the expressed long-term organizational strategies and the financial and nonfinancial and the quantitative and qualitative measures. In doing so, the BSC provides tangible guidance as to how those strategies help create shareholder value. This ability to correlate metrics and value creation makes the BSC an excellent vehicle to help management understand that ostensibly costly sustainable practices are genuinely financially beneficial methodologies.

Once a company has chosen the form of the BSC, management will need to develop metrics to determine whether sustainability goals are being achieved. Measures, targets, and goals chosen for inclusion within a perspective should be:

1. Controllable by the firm's employees,
2. Quantifiable, and
3. Include all component elements when a multi-dimensional measure is used.

Multidimensional measures are common given the complex nature of sustainable operations. For example, the term *greenhouse gasses* may be used to refer to a variety of gasses (carbon dioxide, methane, chlorofluorocarbons, etc.) that are thought to promote global warming. As such, establishing a goal to "reduce greenhouse gas emissions by 10%" should clearly indicate that such a goal encompasses the entire mix of gasses thought to contribute to global warming rather than only one or two gasses.

Although there are no hard and fast rules about the number of measures each perspective should include, trying to incorporate too many measures can be distracting and draws attention away from the firm's central strategy.¹⁶ BSC measures should reflect each individual firm's strategies and operations, so those measures identified will vary widely among companies. For example, a manufacturing firm that adopts a low-cost-leadership competitive strategy might have an internal business process measure designed to focus employee attention on improving operations and reducing costs by minimizing pounds of raw material waste. In contrast, a manufacturing firm pursuing a long-term strategy of product differentiation might include measures targeting sustainable product and process innovations in the internal business process and the learning and growth perspectives.

Companies should select measures keeping seven considerations in mind (see Table 1). First, there should be an underlying objective for the measurement; operations should not be measured simply because they can

be. For example, measuring the quantity of paper that is recycled provides no useful information unless there is a related goal of increasing or reducing that quantity.

Second, sustainable operations and measures are relatively new to many companies, so measurement terminology must be defined prior to use and agreed upon throughout the organization. Without this important step, the metrics may not be comparable among units and thus cannot be reliably aggregated or “rolled up” in a typical responsibility accounting process.

Third, the organization needs to determine whether the data for metrics is available and, if so, where in the information system such data is housed and whether that data is comparable. Thus, the organization’s information technology (IT) and accounting units should be involved in the determination of “green” metrics so that if there is a gap between the information desired and the information currently available, accounting and IT can assess the cost and methodology of gaining access to the currently unavailable information. IT also can help design a data warehouse. The warehouse can be used when performing queries, reporting, and analysis and, thereby, provide a mechanism to ascertain progress in the sustainability arena.

Fourth, because people focus on the results by which they are measured, it is essential to consider what behavior any given metric will encourage. Measurements should be directly correlated with actual progress toward achievement of “green” goals and objectives. Additionally, responsibility for accomplishment of sustainable goals or objectives should be traceable to an individual or an organizational unit.

Fifth, leading indicators will provide a higher level of useful information than will lagging indicators. Leading indicators allow changes to be made in advance of a final, historical outcome—such as periodic profitability. Some measures can serve as both leading and lagging indicators at the same time. For example, the number of chemical spills can be a lagging indicator of internal business process efficiency and a leading indicator of financial fines and penalties.

Sixth, measurements should always be shown in comparison to one or more prior years’ data to determine trends and assess progress toward goals.

Seventh, measurements must be able to communi-

cate information to users, so appropriate benchmarks are needed for comparisons to identify strengths and weaknesses. Some benchmarks may be simple organizational trends or targets—but internal comparisons may not produce the “stretch” needed to create a competitive advantage or possibly to even compete effectively in the marketplace. Thus, if information is available, benchmarks for external parties’ sustainable operations may be helpful.

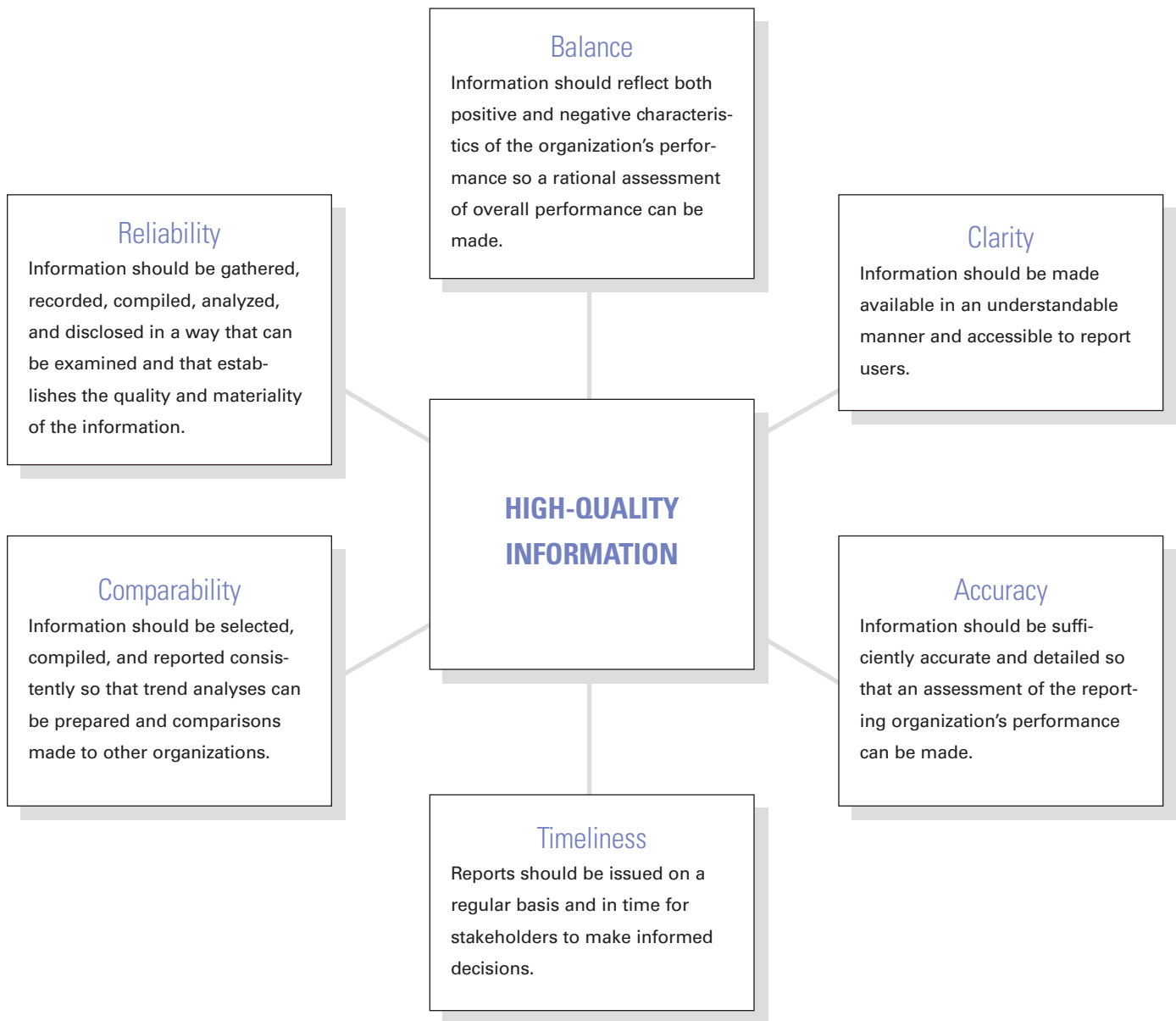
After sustainability-related measurements have been selected, management should review them as a collective whole to determine if there are information redundancies among the measures (in which case, one or more metrics should be eliminated) or if there is important information that has been ignored (in which case, one or more metrics should be added). The review also should examine the number of measures; too few can mean that managers are unable to assess the effectiveness of strategies and sustainable practices. Using too many measurements, however, is wasteful of both time and money and typically is unproductive. Too many measurements may give people a perception that no particular metric is very important, and, thus, all become insignificant.

REPORTING THE BSC INFORMATION

If a company is truly a sustainability proponent, the information generated from the balanced scorecard and its metrics should not be solely for internal consumption. Companies are being pressured by all stakeholders to become more transparent, and such transparency is becoming the norm rather than the exception. The 2008 KPMG International Survey of Corporate Responsibility Reporting found that, in 2008, nearly 80% of the world’s largest 250 companies issued some type of responsibility report.¹⁷

Responsibility reporting covers governance, ethical, environmental, and social issues that are important to an individual company. Regardless of the topic, however, the KPMG survey indicated that 77% of the *Fortune* Global 250 and 69% of the 100 largest companies in 22 countries used the sustainability reporting framework of the Global Reporting Initiative (GRI).¹⁸ (See Figure 2 for information.) External reports easily could be developed from the information contained in a BSC and the

Figure 2: **GRI's Reporting Principles for Defining Information Quality**



Source: Adapted from Global Reporting Initiative, *Sustainability Reporting Guidelines*, 2000–2006, Version 3.0, pp. 13–17.

data warehouse created by the IT department. The GRI guidelines stress the importance of the reporting structure to have high-quality information as delineated by the characteristics shown in Figure 2.

To further facilitate external and internal reporting, GRI has been instrumental in developing an eXtensible

Business Reporting Language (XBRL) taxonomy for its sustainability framework, and in December 2008 Banca Monte Paschi di Siena published the first XBRL-based sustainability report for external users.¹⁹ For internal and external users alike, part of the value of having XBRL-tagged documents is in the flexibility that allows compa-

nies to present similar information in a variety of ways. External users also benefit by being able to easily and quickly compare sustainability measures across firms through these XBRL-tagged documents.

GRI is seeking ways to improve the taxonomy so “it can become a routine tool to support company-investor exchange of information...[and] can potentially reduce the time needed to respond to many of the basic information needs of investors and other key stakeholders.”²⁰ At least one firm—GreenXBRL—has been formed to translate a company’s current sustainability report (in a Word document, on a Web page, or in a PDF file) into XBRL based on GRI’s taxonomy. Bill Cunningham, founder of the socially responsible investing advisory firm Creative Investment Research, believes the new XBRL taxonomy is essential. “If we want a set of social and environmental data that is as good as the financial data, we need to codify the procedures for obtaining it,” he says.²¹

The GRI’s push toward quality reporting of sustainability measures is echoed by the International Organization for Standardization (ISO). The ISO, which issued the ISO 9000 series on quality management and ISO 14000 on environmental management systems, issued ISO 26000—Social Responsibility in late 2010. The social responsibility guidelines state that the form of social responsibility communication should depend on the organization’s nature and the stakeholders’ needs but that any report should include “information about its objectives and performance on the core subjects and relevant issues of social responsibility.”²²

A HELPFUL APPROACH

According to a 2008 survey, the strongest barriers to incorporating sustainability into financial strategy are the inability to measure the effects of sustainability on shareholder value, the inability to document the effects on financial performance, and a lack of standard decision-making frameworks that consider environmental factors.²³ The future benefits of sustainable practices can be ephemeral, the additional costs are immediate and quantifiable, and the nonfinancial goals and measures needed to assess the effectiveness of sustainable efforts are difficult to incorporate into the business. Yet adopting sustainable business practices can impact the

current value of an organization as well as the future livability of the planet. Fortunately, the BSC can help overcome these challenges by providing a framework for integrating qualitative measures into corporate operations and by explicitly linking between sustainability with corporate goals, objectives, and strategies. Additionally, having the availability of an XBRL taxonomy should help facilitate the sustainability reporting processes in the same manner that the Securities & Exchange Commission (SEC) believes XBRL will facilitate financial reporting.

The flexibility of the BSC framework means that management can choose an approach that will work best with a company’s strategic goals, corporate culture, and chosen definition of sustainability as well as the importance of green practices to that company’s customers and other stakeholders. Alternative approaches to including sustainability measures are the establishment of a fifth perspective that focuses on sustainability goals and measures, development of a stand-alone sustainability BSC, and integration of measures throughout an existing or new BSC.

Firms with a comprehensive view of and a true organizational commitment to sustainability are encouraged to consider full integration of sustainable development metrics throughout the traditional balanced scorecard. Sustainability measures cannot be viewed by managers or employees whose performance will be evaluated by those measures as things that were added to the organization’s performance measurement system. If sustainable development is to be viewed as a strategic agenda item by the organization, the metrics used to assess its impact on organizational well-being must be accorded the same status and emphasis as that accorded to other long-term strategies. Otherwise, sustainable development may easily become one of those activities that receives substantive organizational lip service but is never truly seen as an important contributor to competitive advantage either in times of financial health or, perhaps more importantly, in times of financial crisis. ■

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