

BY MARC J. EPSTEIN

On Main Street, consumers have been focusing on two compelling financial and social issues. On the financial side, the price of oil has reached an all-time high, and its cost is affecting each one of us every time we fill our tanks. On the social side, most of us acknowledge that global warming is a critical issue. Witness the Nobel Peace Prize awarded to Al Gore and the UN Intergovernmental Panel on Climate Change for their work related to environmental issues. It was the Peace Prize they received because of the recognition that these environmental issues can cause dramatic changes in our weather patterns, our ability to produce food, and the balance of economic power in the world.

On Wall Street, these same concerns are now front and center. Social and environmental responsibility is no longer an option. For the same financial and social reasons, companies recognize that these issues impact both corporate social and environmental performance and the bottom line simultaneously. And the price of oil, the use of oil, and environmental and financial impacts are inextricably linked.

IMPLEMENTING CORPORATE SUSTAINABILITY:

MEASURING AND MANAGING

Social and Environmental Impacts

Large and small companies alike have recognized that more effective management of stakeholder impacts and relationships is critical to success. The question of whether or why they should pay attention to issues of social and environmental responsibility is no longer up for discussion. The challenge is how. And it isn't only the senior corporate managers who are faced with these issues of sustainability implementation. Financial executives play a critical role in developing processes that will lead to improvements in both social and financial performance. Integrating social and environmental impacts into both operational and capital investment decisions requires expertise that typically lies in the finance functions. Accounting and financial analyses that are part of costing, capital investment decisions, and performance evaluations are important components of the business case that must be made to provide information for managerial decisions regarding corporate social responsibility.

Implementing strategies for managing corporate social, environmental, and economic impacts (sustainability) is thus an important challenge for senior executives, who are often confronted with how to manage the paradox of improving social and financial performance simultaneously. Business unit and facility managers are pressured to deliver profits, and their performance is typically measured primarily on profits. So there's significant incentive pressure that can often make it difficult to obtain alignment of strategy, structure, systems, performance measures, and rewards to facilitate effective implementations. Often it's also difficult to obtain the resources to effectively manage the various drivers of social and environmental performance. What should managers do?

MANAGING CORPORATE SUSTAINABILITY

Corporations have become more sensitive to social issues and stakeholder concerns and are striving to become better corporate citizens. Whether the motivation is concern for society and the environment, government regulations, stakeholder pressures, or economic profit, the result is that most managers must make significant changes to manage their social, economic, and environmental impacts more effectively. The best practices in corporate sustainability performance are no longer focused primarily on companies like Ben & Jerry's or The Body Shop as they were 10 or 20 years ago. Now companies like GE and Wal-Mart (along with many others) are leading the way with significant financial and organizational commitments to social and environmental issues. And all companies, large and small, in high- and low-impact industries, are finding

these issues increasingly important.

As companies search for ways to improve their performance, determining the best approaches to thoroughly integrate social and environmental concerns into all parts of company operations still causes challenges. These challenges exist because implementing sustainability is fundamentally different from implementing other strategies in an organization.

- ◆ For operating goals, the direct link to profit is usually clear.
- ◆ For innovation, though long term and also often difficult to predict and measure, the intermediate goal is new products, and the ultimate goal is increased profit.
- ◆ For sustainability, the goal is to achieve excellence in both social and financial performance simultaneously. Managing and measuring this paradox creates significant challenges. Since the primary goal of business is to earn a profit, incentive pressures exist that cause managers to make decisions to improve profitability. When actions improve both social and financial performance simultaneously (win-win), this is simpler. But when there's a significant financial cost in improving social or environmental performance, managers are faced with a dilemma of how to make the choices and which actions to take.

All this means it's difficult to implement the proper systems to pursue sustainability and to evaluate the impacts of sustainability on financial performance and the tradeoffs that ultimately must be made. Often it's unclear how tradeoffs between financial and social performance should be made. There is also considerable uncertainty about how shareholders will respond to these tradeoffs. Moreover, the tradeoffs keep changing: Today, shareholders may want the company to place substantial weight on social performance and the environment, and at other times they may want the company to place more weight on short-term profits. Sometimes there are no additional costs—such as when emissions are reduced, which improves both the environment and company cleanup costs—but sometimes being a good corporate citizen does cost more in current costs (though it may still have a big payoff in improved corporate reputation and thus improved sales).

The costs of implementing sustainability are also changing constantly. For example, potential technology improvements may reduce equipment costs, so it would be far cheaper to implement pollution reduction processes later rather than at an earlier point in time. Even when a company thinks that sustainability is providing financial

benefits, the benefits can, at best, be measured over long time horizons only. This makes it difficult to measure the impact of social and environmental performance and to quantify the resulting benefits. The constant uncertainty about how much sustainability is necessary, the constantly changing emphasis on and costs of implementing sustainability, and the long time horizons necessary to measure the financial benefits of sustainability make it difficult to implement sustainability in the same way that other corporate strategic initiatives are implemented.

To improve the integration of social and environmental impacts into day-to-day management decisions, companies must tie the measurement and reporting of these impacts into decision-making processes. Further, they must measure and report these impacts in financial terms and then integrate them into the traditional investment models.

THE CORPORATE SUSTAINABILITY MODEL

To implement a sustainability strategy effectively, it's critical that managers:

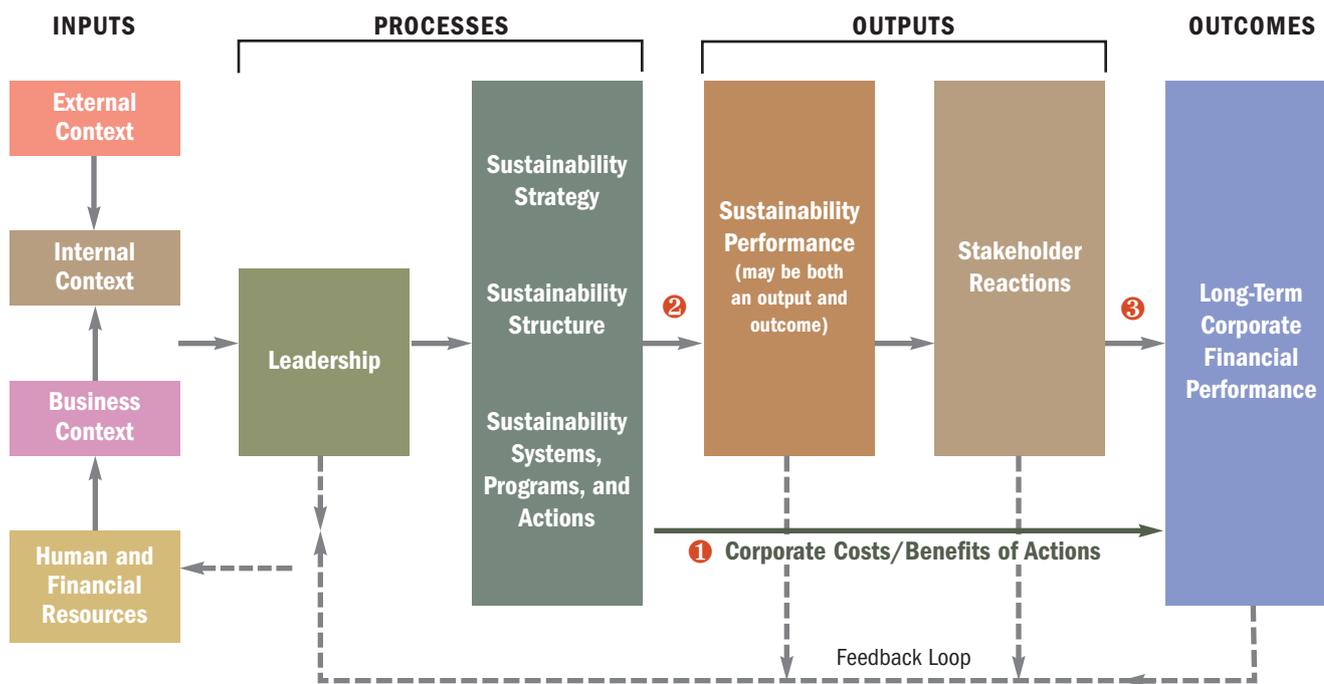
- ◆ Understand the causal relationships among the various actions that can be taken;

- ◆ Understand the impact of these actions on sustainability performance;
- ◆ Understand the likely reactions of the corporation's various stakeholders;
- ◆ Understand the potential and actual impact on financial performance;
- ◆ Integrate sustainability into operational, strategic, and resource allocation decisions;
- ◆ Assist colleagues in managing the paradox of improving social and financial performance simultaneously;
- ◆ Recognize that strategy, leadership, and implementation tools are essential components.

To measure their success in achieving a sustainability strategy, companies must understand these interrelationships and establish relevant performance metrics. Then they can improve operational decision making and “make the business case” for a sustainability strategy through a better linking with the ultimate impacts of the strategy on both the company and society.

Based on extensive company experiences and academic research, I developed a Corporate Sustainability Model (Figure 1) to describe the drivers of corporate sustainability performance, the actions that managers can take to

Figure 1: Corporate Sustainability Model



There are three major sets of impacts.

- ① Corporate Financial Costs/Benefits of Actions
- ② Social Impact
- ③ Financial Impact through Sustainable Performance

affect that performance, and the consequences of those actions on both corporate social and financial performance. By carefully identifying and articulating the drivers of social and environmental performance and measuring and managing the broad effects of both good and bad performance on the corporation's various stakeholders, managers can make a significant contribution to both the company and society. This permits better integration of that information into the day-to-day operational decisions and makes social concerns part of the organization. So far, managers and academics have said that they have found the Corporate Sustainability Model useful.

EXPLAINING THE MODEL

Let's take a look at the Corporate Sustainability Model.

Inputs include the external context (regulatory and geographical), the internal context (mission, strategy, structure, and systems), the business context (industry sector, customers, and products), and the human and financial resources available to the corporation. These inputs guide the decisions of leaders and the processes that the organization undertakes to improve its sustainability. They provide a foundation for understanding the complex factors that leaders should consider and often take the form of constraints that must be addressed. For example, companies in the chemical business will typically have higher environmental impacts, and those that manufacture in China will have additional product quality, safety, and labor issues (as we have seen in the press recently) that are part of the inputs that may not be easily changed but that impact sustainability.

After evaluating the inputs and their likely effects on sustainability and financial performance, leaders can develop the appropriate **processes** to improve sustainability. The sustainability strategy, structure, systems, programs, and actions have three major sets of impacts: corporate financial costs and benefits of actions, social and environmental impact, and financial impact through sustainability performance.

The managerial actions taken lead to sustainability performance (positive or negative) and stakeholder reactions (**outputs**) that ultimately affect long-term corporate financial performance (**outcomes**). Also included in the model are continual feedback loops that leaders can use to evaluate and improve corporate strategies. Managers should customize this general framework to reflect their particular internal, external, or business context. They must map a corporate performance framework that reflects their specific concerns and interests in sustain-

ability performance and that provides rewards for supportive managerial actions.

A fundamental aspect of this framework is the distinction between intermediate results and financial outcomes. In Figure 1, Arrow 1 portrays processes that have immediate and identifiable costs and benefits that affect long-term corporate financial performance. Arrow 2, on the other hand, shows the impact of the various inputs and processes on sustainability performance. Arrow 3 shows how corporate financial performance is impacted by stakeholder reactions to corporate sustainability performance. Therefore, intermediate outputs, such as environmental and social performance, public image, employee hiring, and market share, must be monitored to determine the effectiveness of sustainability management practices.

Arrow 3 depicts what is often termed "the business case" for sustainability or corporate social responsibility.



Whereas Arrow 2 portrays the effect of sustainability actions on social performance, Arrow 3 reflects how, through stakeholder reactions, the social performance affects financial performance. Thus, sustainability or social performance should be seen as both an intermediate output and an outcome. That is, it's important to understand, measure, monitor, and manage social performance because of concern for societal impacts and for long-term corporate financial performance.

The feedback process is an important aspect of the Corporate Sustainability Model that will challenge and change strategies and assumptions. Various mechanisms must be in place so that it doesn't rely exclusively on the data related to financial performance. Indeed, appropriate management control systems should feed back information on potential environmental and social impacts, sustainability performance (at all organizational levels), sustainability initiatives, stakeholder reactions, and corporate financial performance.

INTEGRATING SUSTAINABILITY

The costing, capital investment decision, and performance evaluation processes are critical elements in any successful implementation, and the role of the financial executive is central to them. The financial executive can

provide significant additional assistance and guidance with the tools described here. He/she can do the required measurements to fit into the capital investment request processes and/or can provide guidance and assistance in how to do the performance measurements to aid in the analysis and decision making.

Turning strategy into actions and then into successful performance improvement is accomplished in part through the effective use of various management systems such as human resource management, costing, capital budgeting, performance measurement, and incentive systems. These systems are instrumental in achieving positive sustainability impacts and in improving stakeholder reactions as well as financial performance. They influence innovation, productivity, costs, revenues, capacity availability, and quality. These decisions about the design and implementation of the management systems to put into place help determine the company's competitive stance and long-term positioning. An evaluation of the cash flows associated with the costs, benefits, and risks associated with alternative decisions is required. A more complete analysis that is aided by the financial professionals can help make the capital investment decision-making process more complete since the costs, benefits, and risks are analyzed and measured more thoroughly. These are often not measured because the managers aren't expert in performance measurement and the financial professionals haven't focused on applying both the financial and nonfinancial measures discussed here—these do improve analysis and decisions.

Before investing in a new location, Royal Dutch Shell employs a human rights institute to conduct country risk assessments, highlighting any human rights risks managers should consider when making a decision as to whether to enter the country. Alcoa, like many others, has established a comprehensive capital expenditure review process for environment, health, and safety that analyzes benefits and costs more carefully.

Companies are increasingly trying to improve their costing of social and environmental impacts. At Canon, each department bears the financial burden of its own waste processing. With this new program, waste generated by each workplace is collected at a recycling center where the department, type of waste, and amount are recorded. Each department is then assessed a waste processing fee for the waste produced. As companies improve the costing of social and environmental impacts—often using approaches like activity-based costing (ABC)—they gain a better understanding of the complete costs of

products, services, processes, and other activities. This can lead to improved understanding and management of both sustainability and financial performance.

Corporate incentive and reward systems are often a critical piece of the alignment process. Some companies have developed comprehensive self-assessment programs to focus their organization's efforts on performance areas that create value for the company's stakeholders and that help sustain long-term improvements. Then they often establish targets to measure improvements and develop a set of rewards for individuals and teams to reward improved social and environmental performance.

Other companies have tied individual performance reviews and compensation explicitly to sustainability performance, establishing social and environmental performance as a critical variable for compensation in incentive systems. For example, Wal-Mart has linked executive bonuses to diversity in its hiring practices. At Shell, environmental and social aspects can be a 20% component of performance measurement and bonuses.

As companies move toward more systematic implementation of sustainability, the processes to implement sustainability, including the ones described earlier and measured in Table 1, and the measurement of performance become increasingly important. Whether companies want to bring these factors explicitly or implicitly into performance evaluation and rewards, improved measurement and management are critical. The potential costs, risks, and benefits are increasing, so the measurement and integration of these impacts into capital investment decision systems and return on investment (ROI) calculations, costing systems, and performance measurement systems become increasingly important—as does the role of the financial executive, who has the skills to do the measurements and analysis necessary to improve these decisions and who is the one generally responsible for the capital investment and costing analysis. (A comprehensive approach for the integration of social, environmental, and political issues into capital investment decisions and ROI calculations will be the focus of a related article in next month's issue.)

IMPLEMENTING THE FRAMEWORK AND MEASURING RESULTS

Many companies haven't focused on quantifying the link connecting sustainability actions, sustainability performance, and financial gain and haven't focused on making the "business case" for corporate social responsibility. Instead, they act in socially responsible ways because they

Table 1: Selected Examples of Sustainability Metrics

DRIVERS	PERFORMANCE MEASURES
Inputs	<ul style="list-style-type: none"> • Alignment of corporate strategy to sustainability • Number and diversity of business units • Geographic diversity of production and sales • Sustainability impact of processes, industry, and product • Corporate financial position • Industry competitive position • Sustainability component in managerial performance evaluation • Resources available for sustainability
Processes	<ul style="list-style-type: none"> • Number of plant visits • Commitment of corporate and sustainability leadership • Child labor policy • Access of sustainability management to top management • Excellence in board processes • Resources devoted to sustainability • Adoption of codes and standards for sustainability improvement (including number of facilities certified) • Number and level of staff devoted to sustainability • Hours of ethics training per employee • Number of suppliers certified for sustainability
Outputs	<ul style="list-style-type: none"> • Number of plant closings • Volume of hazardous waste • Packaging volume • Amount of minority business purchases • Money contributed through philanthropy and cause-related marketing • Percent and number of women and minorities in senior positions • Number of injuries • Number of spills, accidents, discharges • Number of human rights and labor violations • Results of ethics audit • Rate of defective products • Number of consumer protests • Number of employee grievances • Number of fines • Number of product recalls • By-product revenue • Number of social funds listing company stock • Number of awards received
Outcomes	<ul style="list-style-type: none"> • Revenue from recycled waste materials • Revenue from cause-related marketing • Increased sales from improved reputation • Reduced cost of materials due to reduced waste • Employee turnover reduction • Revenue growth • Reduced cost of environmental cleanup • ROI • Profits

believe it's "the right thing to do." Yet programs put in place solely for this reason are vulnerable because they are subject to the whim of shifting public priorities, changing corporate leadership, and financial cycles.

Only by making the "business case" for social and environmental performance can managers truly integrate social and environmental aspects into their business strategies. This is challenging because the costs and benefits of a sustainability strategy aren't firmly lodged in any one function or business unit. Further, many economic benefits of sustainability initiatives are often seen as intangible and therefore difficult to measure. Measuring hazardous waste generated is relatively straightforward, measuring employee satisfaction is more difficult, and measuring the impact of a company on society is even more difficult. And converting these impacts into monetary terms provides additional challenges. But for each of these we know the number isn't zero, and each represents an output that relates to the success of a sustainability strategy. Sustainability benefits are also often longer term, making them more challenging to relate to current organizational performance. Nevertheless, the measures are important for management decisions and to facilitate continuous improvement. These systems also provide the proper tools for feedback and corrective actions.

Table 1 provides a small sample of measures for the inputs, processes, outputs, and outcomes in the Corporate Sustainability Model. Companies typically select a small number of measures and customize them to meet their corporate strategies. The measures should be quantifiable, in either absolute or percentage terms, as well as complete and controllable. Also, all measures should be clearly linked in a causal relationship.

Various tools and techniques are available to measure the different aspects of sustainability performance. For example, customer surveys are powerful tools that help companies better understand the benefit of sustainability investments for increasing revenue or decreasing costs related to their customers. They provide valuable information regarding opportunities to improve overall profitability. Internally, surveys, focus groups, and other techniques are increasingly being used to measure and monitor employee and other stakeholder reactions and provide feedback. Dow Chemical has established community advisory panels in most of the communities in which it has facilities, and they serve as a voice of the community. These panels have suggested a variety of efforts such as emergency response education for residents, community projects, and local hiring.

In addition, further statistical analysis should be performed to analyze and test the validity of the customized model. As companies evaluate the initial model's performance, they will inevitably add links and drop others because there isn't enough evidence of a strong relationship. This phase is critical because it's here that a final model emerges and the focus shifts to applying the model to support decision making. Internal and external factors may challenge and change assumptions and strategies. Thus, in light of new information, metrics and links must be continuously updated and reassessed.

Although measurement may be imprecise, it certainly is relevant. Social and environmental impacts should be included in ROI calculations for more effective managerial decision making at all organizational levels. Well-designed measurement systems aid in evaluating the impacts of sustainability initiatives on financial performance and the tradeoffs that ultimately must be made when there are many competing organizational constraints and numerous barriers to implementation.

ASSETS AND OPPORTUNITIES

Without appropriate management systems, corporations may not reap the benefits associated with sustainability performance. The alignment of strategy, structure, management systems, and performance measures is essential for companies to be able to coordinate activities and motivate employees toward implementing a sustainability strategy. This must be viewed over a long time horizon so that both the leading and lagging indicators of performance can be examined.

The Corporate Sustainability Model provides a comprehensive approach for examining, measuring, and managing the drivers of corporate sustainability. It has been extensively tested and revised in both academic and managerial studies and implementations. Managers can use it to gain a greater understanding of the impacts of the various past, pending, and future corporate decisions on both the company and society. And it can help them make a sustainability strategy part of a company's regular operations and tie it to the specific actions that will improve both sustainability performance and financial performance. A careful identification and measurement of key performance drivers improves the strategy implementation process. This model can provide guidance to both researchers and managers that will help them better analyze and manage these drivers and to manage social and environmental impacts more effectively.

Global companies are increasingly faced with difficult

dilemmas. Particularly, there is significant pressure to reduce costs in the supply chain. Yet by switching to lower-cost suppliers, various social and environmental impacts may increase, and the reactions from various stakeholders—including employees, customers, regulators, and community activists—may have a detrimental effect on financial performance. Senior management is often faced with complex facility location decisions that in simpler times could be completed by examining differentials in labor, shipping, and raw material costs. Now social, environmental, and political risk must become part of the calculus.

The results of corporate decisions are being scrutinized more closely than ever before. Some companies have been ineffective in the development and implementation of a strategy for addressing environmental and social concerns or integrating these issues into day-to-day management decisions. In contrast, leading companies view social and environmental responsiveness as an asset and an opportunity, not as a liability or cost. They recognize that an investment in the structures and systems to ensure strong social and environmental performance often pays dividends in terms of improved process and production quality, improved production efficiency and yields, improved innovation, lower risk, improved reputation, and increased profitability. ■

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