Stanford SOCIAL INNOVATION REVIEW

Thinking Straight About Sustainability

By Marc J. Epstein

Stanford Social Innovation Review
Summer 2010

Copyright © 2010 by Leland Stanford Jr. University
All Rights Reserved

STANFORD GRADUATE SCHOOL OF BUSINESS
Stanford Social Innovation Review
Email: info@ssireview.org, **www.ssireview.org**

Thinking Straight About SUSTAIN

SUSTAINABILITY IS NOT ONLY THE BEST WAY TO DESCRIBE HOW TO INTEGRATE SOCIAL, ENVIRONMENTAL, AND ECONOMIC IMPACTS INTO ALL CORPORATE DECISIONS, IT IS ALSO THE BEST WAY TO MANAGE A BUSINESS TO ACHIEVE THOSE SAME RESULTS.

By Marc J. Epstein | Illustration by Carlos Aponte

ABILITY

The term corporate social responsibility (CSR) has been widely used as a way to discuss and monitor a company's social programs and behavior. There are socially responsible scorecards, socially responsible mutual funds, and corporate social responsibility annual reports, to name just a few. CSR has proven to be a useful way to *describe* a company's behavior and programs, but it has been less useful as a tool to help executives *manage* their company's operations in a responsible and long-term manner.

Using more recycled materials or imposing more stringent labor standards on suppliers may be more socially responsible behavior, but is it always the best way for a company to lessen its impact on the environment or increase the welfare of its workers? To enable business leaders to answer these and similar questions and manage accordingly, a new term—signifying a new approach to the problem—is needed.

Increasingly, business leaders are adopting the term *sustainability* as the best way to describe not only how to integrate social, environmental, and economic impacts into all corporate decisions, but also how to manage the company to achieve those same results. The important insight that sustainability brings is the recognition that business leaders must consider the

long-term impact of their decisions on the company, industry, environment, and society.

Focusing on sustainability also frames the challenge in a way that is broader than a company's charitable contributions or strategic philanthropy, one that includes all of the company's products, services, processes, and other activities, as well as the impact customers have when they use the company's products. After all, these are where the company's greatest impacts—both positive and negative—are likely to occur.

Consider, for example, Procter & Gamble's experience with its popular detergent products. When the company looked closely at the impact that Tide and other detergents had on the environment, it found something surprising. The greatest amount of carbon dioxide emissions occurred when its customers heated water to wash their clothes, not during the manufacturing or distribution of the detergents. That led Procter & Gamble to develop more effective cold water detergents—such as Tide Coldwater and Ariel Cool Clean—

> Only by making the business case for social and environmental performance can managers truly integrate these issues into their overall strategy.

that work as well as the company's hot water detergents. Customers washing their clothes in cold water use about 40 percent less energy than those using hot water, thus reducing the amount of carbon dioxide emissions. An added bonus is that customers also save money because they don't have to heat the water.

Although many business executives now recognize the importance of integrating sustainability into management decisions, they still find it hard to implement this idea throughout the company. Many decisions that impact sustainability are made in business units and facilities closest to where the impacts occur rather than at the corporate office. These local managers are often under pressure to deliver profits, and their performance and compensation are typically measured on this basis. The problem is magnified at multinational corporations, where important decisions are made on a country-by-country basis by managers who are often under pressure to compete with local companies that do not adhere to global standards.

If managers are going to be able to make these types of trade-offs in a way that enhances sustainability, three elements are critical. The business unit, geography, and facility leaders must be trained to evaluate and make decisions regarding the trade-offs. A measurement and evaluation system must be in place to aid in evaluating the impacts of various activities and alternatives. And this measurement system must be part of a coherent strategy and causal linkage model that articulates how various social and environmental impacts are likely to affect the company's long-term financial performance. I have created a model that incorporates these three important factors, but before exploring the model in detail it is important first to understand why managing for sustainability is difficult.

Marc J. Epstein is a distinguished research professor of management at the Jesse H. Jones Graduate School of Management at Rice University. He is the coauthor of "In Microfinance, Clients Must Come First" (*Stanford Social Innovation Review*, winter 2008). He is the author of 18 books, including, most recently, *Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental, and Economic Impacts*.

SUSTAINABILITY IS HARD

Mission-driven companies like Ben & Jerry's, Patagonia, and the Body Shop were once the vanguard for corporate sustainability performance. Today, multinational corporations like General Electric, Nike, and Wal-Mart Stores are leading the way with significant financial and organizational commitments to social and environmental issues. Whether their motivation is concern for society and the environment, fear of government regulations, pressure from stakeholders, or the search for profit, the result is that companies are developing more effective ways to make decisions that balance the sometimes conflicting social, economic, and environmental interests.

Despite the clear progress that companies have made in developing sustainable business practices, determining the best ways to thoroughly integrate social and environmental concerns into all parts of company operations remains challenging. These challenges exist because implementing sustainability is fundamentally different from implementing other business goals.

To achieve most corporate operating goals, the direct link to profit is usually clear, making management decisions relatively straightforward. To achieve the goal of sustainability, however, requires a more complex decision-making process. Often, it's unclear how trade-offs between financial and social performance should be made. There is also considerable uncertainty about how shareholders will respond to these trade-offs. Moreover, the trade-offs 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 or even savings to be achieved by being a good corporate citizen—such as reducing the amount of packaging that improves both the environment and reduces the use of raw materials. But other times, it does cost more in current costs to behave responsibly—such as reducing environmental emissions when regulations don't require it—though it may still pay off in the long run by improving the company's reputation and enhancing customer loyalty and sales.

The costs of implementing sustainability are also changing constantly, making it difficult to determine when to implement a decision. For example, potential technology improvements may reduce equipment costs, so it would be far cheaper to implement pollution reduction processes at a later date rather than doing it earlier. 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 BUSINESS CASE FOR SUSTAINABILITY

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 sustainability. Instead, they act in socially responsible ways because they 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 issues 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. Sustainability benefits are also often longer term, making them more challenging to relate to current organizational performance. And converting these impacts into monetary terms provides additional challenges. But for each of these impacts we know the number isn't zero, and each represents an output that relates to the success of a sustainability strategy.

To help business executives manage their companies on a sustainable basis, I have developed the Corporate Sustainability Model. The model describes the drivers of corporate sustainability performance, the actions that managers can take to 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 the company, environment, and society. This permits better integration of that information into the day-to-day operational decisions and makes social concerns part of the organization.

THE CORPORATE SUSTAINABILITY MODEL

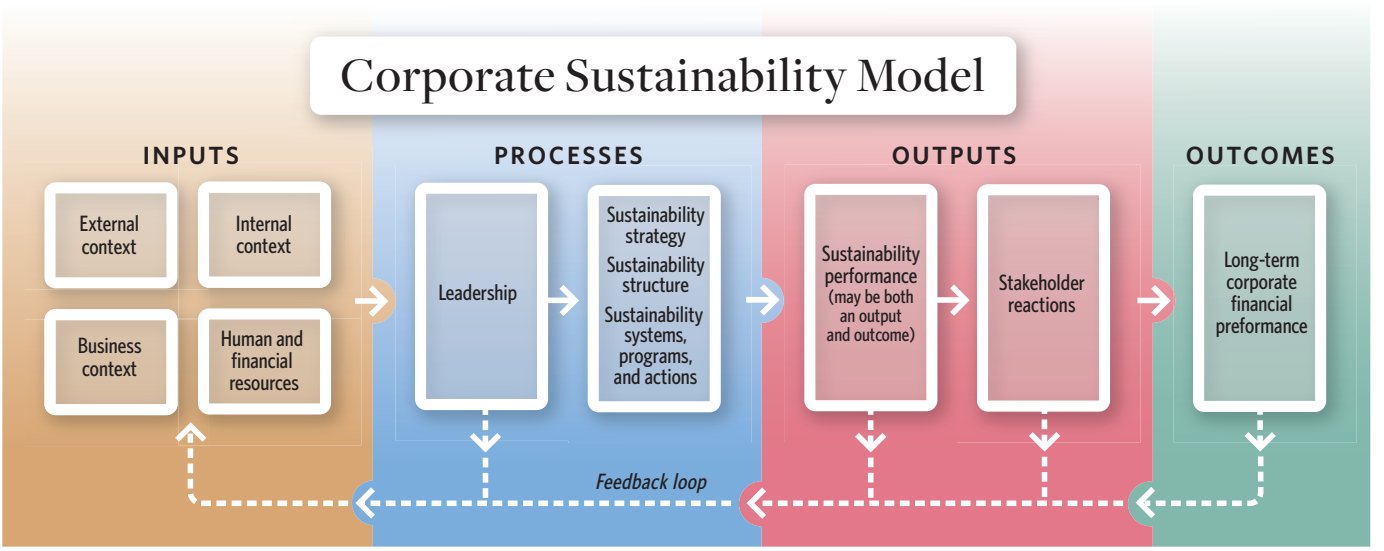
The Corporate Sustainability Model has four basic parts: inputs, processes, outputs, and outcomes. (See "Corporate Sustainability Model" below.) The model starts with *inputs*. There are four types of inputs: the external context (the regulatory environment and geographical factors), the internal context (the company's mission, strategy, structure, culture, and systems), the business context (the 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 executives 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 that are part of the inputs that may not be easily changed but that affect sustainability.

After evaluating the inputs and their likely effects on sustainability and financial performance, business executives can develop the appropriate *processes* to improve corporate sustainability. These business processes include the company's strategy, structure, systems, programs, and actions along with the leadership necessary to implement them. To lessen the company's impact on the environment, for example, executives could adopt stricter factory emission standards or compel suppliers to adhere to more stringent environmental standards. To improve the lives of the company's workers, executives could adopt child labor laws for overseas operations or raise wages and benefits.

These resources and constraints (inputs), along with leadership, strategy, structure, systems, programs, and actions (processes), lead to various *outputs*. There are two basic types of outputs. The first type includes the increase or decrease in the company's sustainability performance. The second type of output is the stakeholders' reactions to that performance. Stakeholder reaction can be equally important because it can affect customers' decisions whether to buy or not buy a company's products, regulators' decisions whether to increase regulations on an industry or the company's products, potential employees' decisions whether to join the company's workforce, and a community's decisions whether to provide a license to operate.

This entire causal chain ultimately leads to *outcomes*—a company's long-term financial performance. This is the way that success is usually measured. For those companies that are willing to sacrifice



some financial success for improving sustainability, or that strive for a double or triple bottom line, the outcome is the long-term financial performance along with its sustainability performance.

An important part of the model is the feedback loops that leaders can use to evaluate and improve corporate processes. 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.

CUSTOMIZING THE MODEL

The Corporate Sustainability Model is a general framework for examining sustainability issues. To implement the model, executives must customize it to reflect their company's particular internal, external, and business context. The model must reflect their specific concerns and interests in sustainability performance and be one that rewards managerial actions. Companies typically select a small number of metrics and customize them to meet their sustainability strategies. The metrics should be quantifiable, in either absolute or percentage terms, as well as complete and controllable. All metrics should be clearly linked in a causal relationship.

Various tools and techniques are available to measure the different aspects of sustainability performance. 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. Internal surveys and external focus groups are increasingly being used to measure and monitor employee reactions and provide community feedback. The Dow Chemical Company, for example, has established community advisory panels in most of the communities in which it has facilities. These panels have suggested a variety of efforts such as emergency response education for residents, community projects, and local hiring.

Companies are also trying to improve the measurement of the financial cost of social and environmental impacts. Before investing in a new location, Royal Dutch Shell employs a human rights institute to conduct country risk assessments, highlighting any human rights risks that managers should consider when deciding whether to enter the country. At Canon, each department bears the financial burden of its own waste processing. 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.

Corporate incentive and reward systems are an important tool to align management decisions with sustainability goals. 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. They then establish targets to measure improvements by teams or other company groups and reward them for improved social and environmental performance.

Other companies have tied individual performance reviews and compensation explicitly to sustainability performance. Wal-Mart, for example, has linked bonuses to increasing diversity in its hiring practices. At Shell, environmental and social criteria contribute as much as 20 percent of performance measurement and bonuses.

Once a company has created its own Corporate Sustainability Model, it needs to evaluate and update it continually. 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. Further statistical analysis must be performed to analyze and test the validity of the customized model.

THE MODEL IN ACTION: DRILLING FOR GAS IN WYOMING

To better understand how the Corporate Sustainability Model can be used to help business executives make complex decisions about sustainability, it is useful to examine a real-world case: the gas drilling fields of Wyoming and the trade-offs that need to be made between energy development and wildlife protection.

Sublette County, in southwestern Wyoming, is a wide-open, beautiful land with soaring blue skies and huge mountain ranges. The area also contains one of the largest natural gas reserves in the United States. Six primary oil and gas companies currently operate in this area: Anschutz Exploration, Encana, Questar, Shell, Stone Petroleum, and Ultra Petroleum.

In addition to housing natural gas reserves, the area is considered crucial winter range habitat for pronghorn antelope, elk, and mule deer. The gas reserves infringe on an important migratory corridor for these animals between the summer ranges in Yellowstone and Grand Teton national parks and the winter ranges 150 miles south. The migration corridor is framed by mountain ranges and streams, which form a natural bottleneck. Development, due in part to natural gas drilling, threatens to narrow the bottleneck.

The sage grouse also makes use of this habitat to mate and nest during the summer months. Sage grouse populations have declined by 90 percent over the past century because of the loss, degradation, and fragmentation of sagebrush habitats. Concerned citizens and conservationists are petitioning the U.S Fish and Wildlife Service to list the sage grouse as an endangered species.

The rapid expansion of energy development has triggered environmental concerns, including the narrowing of big game wildlife migration corridors, loss of winter range, and harmful effects on sage grouse habitat. To partially alleviate these concerns, there is a winter moratorium on drilling of natural gas wells. During this annual moratorium (from Nov. 15 to April 30), energy companies operating on public lands can only service gas wells that were productive before the beginning of the moratorium. In addition to the moratorium, there are restrictions on the spacing of wells in an attempt to preserve winter range for big game animals. The strutting grounds for sage grouse are also protected from drilling activity within a quarter mile radius during the mating period, which occurs during March and April.

The energy companies faced a challenge: How to balance their interest in developing these gas fields with the need to be environmentally responsible. These are not easy decisions to make. They require trade-offs that affect the company's sustainability performance and stakeholder reactions (outputs) as well as its long-term corporate financial performance (outcomes). Modeling all of the inputs and processes, along with the outputs and outcomes, that go into an energy company's decision-making process is complex. For that reason, this example focuses on measuring stakeholder reactions.

MEASURING STAKEHOLDER REACTIONS TO DRILLING

In June 2004, I led a team of researchers to Pinedale, Wyo., to study the gas drilling controversy and develop a method for weighing potential stakeholder reactions. When we first arrived, the stakeholders we spoke with complained of both inadequate and inaccurate information about the impacts that drilling might have on society and the likely stakeholder reactions to increasing drilling activity. To remedy the situation we spent six weeks interviewing stakeholders, visiting gas fields, and viewing the migratory paths for big game animals.

We discovered that there were a wide variety of stakeholders involved in the gas drilling issue with varying opinions on what should be done. Some stakeholders wanted drilling to proceed as quickly and on as big a scale as possible. These included workers who want high-paying jobs in the gas fields, local retailers who stood to profit from increased sales, advocates of domestic drilling who believe that the United States should be more energy independent, and government officials who wanted increased taxes to support programs.

> The Corporate Sustainability Model provides a comprehensive way to examine, measure, and manage the drivers of business sustainability.

Other stakeholders preferred there to be little or no drilling. These included environmentalists, of course, but also hunters who feared that increased drilling would reduce antelope, elk, and mule deer herds, along with local residents who were afraid that an influx of transitory oil workers would increase crime and traffic and overcrowd the schools.

Understanding that different stakeholders hold different opinions is an important first step, but quantifying these differences in a way that allows management to compare them and make decisions is much more difficult. One way to do this is to measure different stakeholders' willingness to pay (WTP) for the trade-offs. For example, How much more money would an environmentalist be willing to pay in higher energy costs to offset less drilling? One of the strengths of this approach is that these forced trade-offs provide far more information than a simple survey of preferences typically provides.

We surveyed both the local population as well as a national audience to find out how much people would be willing to pay to protect the environment. The survey found, for example, that the majority of households were willing to pay more than $50 per year in higher energy costs to mitigate the effects of energy development on wildlife migratory routes. But within that number there are big differences. About 17 percent of those living outside of Wyoming were willing to pay more than $200 in higher energy costs each year, compared to only 9 percent of those living in Wyoming who were willing to do the same.

Armed with that information, Shell's operations manager was able to know that a cross-section of stakeholders are concerned with environmental issues in the Pinedale area. He also knows that stakeholders who are more highly educated or who live outside of Pinedale are willing to pay a higher price for energy to compensate for lower rates of gas production. He can use the calculated WTP to help decide whether and how much to invest in green technologies that extract natural gas while minimizing the disturbance to the environment. Shell corporate executives could use the data from national correspondents to craft policies that affect its corporate image.

Other parties are able to use the data for other purposes. Wyoming government officials, for example, can use the data from Wyoming respondents to develop policies appropriate to their constituents. Similarly, groups representing hunters or government agencies like the U.S. Fish and Wildlife Service can use the data from hunters to inform their decision making.

By monetizing the decision, the WTP captures how intensely people feel about an issue. Although the actual dollar value may not be accurate, the relative dollar values do matter. It takes only a handful of people with very intense feelings who are willing to take an extreme action (e.g., chain themselves to a drilling rig) that may shut down an operation or bring unfavorable national publicity.

These data are admittedly imprecise and there are limitations of the WTP measure, but it is highly relevant for decision making. Managers often must balance reliability and relevance, and the sustainability arena is no different. Until now, managers have been frustrated with a lack of information for decision making. This model provides a method to identify, articulate, and measure stakeholder reactions, and suggest how that information can be used to inform sustainability decision making.

RISKS AND OPPORTUNITIES

Multinational corporations face difficult dilemmas. In the past, executives could decide where to locate a manufacturing facility by looking at such factors as differentials in labor, shipping, and raw material costs. Today, social, environmental, and political risk must also be part of the calculus. And the results of these types of corporate decisions are being scrutinized more closely than ever before.

Some companies have effectively integrated environmental and social concerns into their day-to-day management decisions. They view social and environmental responsiveness as an asset and an opportunity, not as a liability or a 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.

Many companies, however, have not yet become sustainable. A recent poll by the American Institute of Certified Public Accountants found that 84 percent of managers do not explicitly measure or consider the impacts of their management decisions on society and the environment. Given the significance of social and environmental impacts on a company's long-term performance, this is a major oversight.

One of the reasons many companies have not integrated sustainability into their management decision-making process is that there has been too little guidance about how to do so. That is rapidly changing. The Corporate Sustainability Model is one approach to doing so, providing a comprehensive way to examine, measure, and manage the drivers of corporate sustainability. ■