Risk Management | **ANNUAL CONFERENCE TOPIC**

Transforming Social and Environmental Risks into Opportunities

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PHOTOGRAPH: PHOTODISC

The concept of sustainability has matured in recent years. No longer is it only about risk and compliance—it's also about innovation and the opportunity to simultaneously achieve excellence in social and financial performance. Capitalizing on sustainability, however, requires a shift away from seeing social and environmental issues only as hazards to be avoided; they can actually be opportunities that propel business growth and provide significant possibilities for new competitive advantage.

In the February issue of *Strategic Finance*, we discussed a method to integrate, manage, and monitor social, political, and environmental risks into operational and capital investment decisions. Those who want more complete information on risks should see "Integrating Social and Political Risk into Management Decision-Making," written by us and published jointly by the Chartered Institute of Management Accountants (CIMA), the American Institute of Certified Public Accountants (AICPA), and the Society of Management Accountants of Canada (CMA Canada), which is the source for the material in that article. In this article, we outline how companies can capture and manage opportunities related to social and environmental issues, including identifying, measuring, and integrating corporate social opportunities into management decision making for growth and profit.

Risk and opportunity related to social and environmental issues are a duality—like two sides of the same coin. By focusing on the downside of risk, companies sometimes forego opportunities that have never been formally analyzed. If approached in a rigorous way, social and environmental issues can often be managed to make way for opportunity.

Being able to see risks and opportunities simultaneously is similar to perceiving both the vase and the two faces in psychologist David Rubin's classic optical puzzle, the Rubin Vase (see Figure 1).

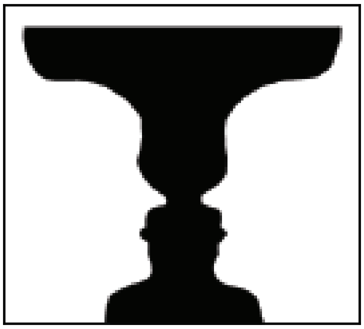


Figure 1: *The Rubin Vase*
(This is a modified version of the original.)

Developing the capability to recognize opportunities where people usually see hazards requires a change in the management mind-set. This is a critical journey for financial professionals interested in helping their organizations better manage—and benefit from—environmental and social challenges. Companies can become leaders in corporate sustainability by developing proactive strategies that create opportunities and increase profits rather than using only reactive strategies that respond to government regulation, industry standards, or consumer protests.

FROM RISK TO OPPORTUNITY

Many corporations are looking for workable models for responding to and capitalizing on environmental and social issues. And a number of mainstream companies want to be more responsible, but they don't know how increased social and environmental responsibility and accountability relate to shareholder value. The business case and payoffs must be clear, as should the systems and metrics to develop, measure, and implement innovations around these issues. Critical elements for companies seeking market success in this challenging realm include:

- Leadership committed to sustainability as a vehicle to market success,
- Sustainability strategies that cascade throughout the organization, and
- Effective management controls, performance measures, and organizational capacity to integrate sustainability into corporate strategy.

"Leadership" companies view responsiveness to social and environmental issues as assets that produce increased revenues rather than only as liabilities with their associated costs. They recognize that an investment in structures and systems to ensure strong social and environmental performance often pays dividends in terms of improved processes, production quality, efficiency, yields, reputation, and profitability, as well as lower risk.

For example, in May 2005, General Electric launched *Ecomagination*, its company-wide commitment to address global environmental challenges. The project is GE's commitment to imagine and build innovative solutions that benefit customers and society with products ranging from energy-efficient, compact fluorescent light bulbs and high-efficiency clothes washers to hybrid locomotives and high-efficiency gas turbines. GE views *Ecomagination* as a business strategy to drive growth; current revenues on environmental technology from this program already exceed $12 billion annually. GE is capitalizing on the growth of "green" markets, reducing its own costs by cutting energy and resource consumption and boosting revenues by offering products that can help others do the same.

Some companies may have superior organizational knowledge and capabilities that permit them to accept risk and respond to it effectively, while their competitors avoid potential opportunities because of their organizations' assessments of these risks. Some may be able to identify voids in the marketplace that provide opportunities for innovation that others may not see. Innovation and market success often result from a company's superior ability to recognize and manage those opportunities.

A company's ability to use tools to simultaneously perceive and assess risk and opportunity can enable it to manage offensively as an opportunity rather than defensively as a hazard. The challenge for companies, then, is to develop strategies that anticipate the changing business landscape and use social and environmental pressures as sources for innovation.

Transforming social and environmental risks into opportunities for market success is a three-step process:

1. Identifying opportunities,
2. Aligning opportunities with strategy, and
3. Evaluating opportunities.

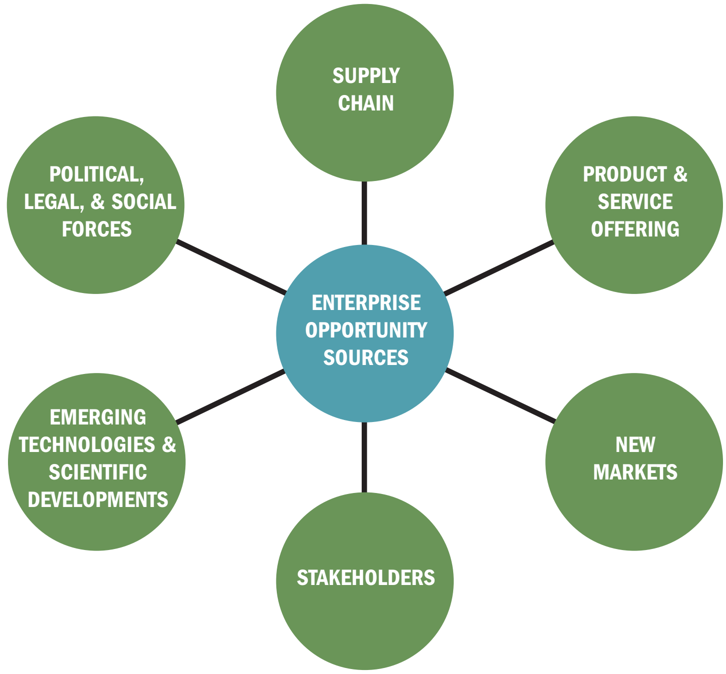
1. IDENTIFYING RISKS & OPPORTUNITIES

Identifying opportunities that ignite innovation is often considered a lucky coincidence—something that happens when smart, creative people come up with a good idea that happens to spark market interest. In reality, innovation is a process. It includes a good idea embedded in established policies, procedures, and information mechanisms that allow for innovation to thrive within and across organizations. Being able to identify and manage risks—to a particular business, an industry, or society at large—can spur innovation and lead to market success.

For example, the fast-food industry has been under attack for contributing to increased obesity. When McDonald's recognized that its customers' preferences were changing, it responded with healthier foods. It began offering salads that were more appealing, and it partnered with Newman's Own to provide all-natural gourmet salad dressing and premium coffee. It now also provides sliced apples in Happy Meals. As a result, McDonald's sales and share price have increased in an age when other fast-food chains are scrambling to respond to the threats of obesity litigation and changing customer preferences.

Likewise, Toyota's leaders tried to envisage what might transform its industry and threaten future market share. They pinpointed climate change and convened a team in 1993 to create the first great car of the 21st Century, nearly a decade before that century arrived. As a result of a series of technological breakthroughs, manufacturing innovations, and careful marketing, Toyota has sold more than one million Prius gas-electric hybrid cars since introducing them in 1997. That's five times as many vehicles as its nearest competitor.

Figure 2: *Sources of Social and Environmental Risk & Opportunity*



Sources of Opportunities

Within social and environmental issues, there are opportunities for both technological and business model innovation. Technological innovation can include new products and services, process technologies, and enabling technologies. Business model innovation can include a new value proposition, changes in the approach to the supply chain, and targeting different customers. Carefully examining a variety of sources both within and beyond the business can help managers hone in on corporate social opportunities (see Figure 2).

Supply chains are traditionally seen as critical sources of social and environmental risk, as evidenced by issues ranging from child labor on West African cocoa plantations supplying the world's major chocolate manufacturers to allegations of sweatshops supplying clothing manufacturers such as the Gap. Some companies respond by committing to sustainable sourcing and auditing for social risks; others capitalize on growing societal concern by developing sustainable brands.

Nau, an outdoor-clothing company, has crafted its entire operation based on sustainability principles ranging from designing environmentally friendly clothing to manufacturing products under fair conditions to its green retail stores.

Creating new *products*, redesigning existing products, and reengineering processes are other ways to capture opportunities. Interface has developed eco-friendly recyclable carpeting for industrial and home use, and companies such as Converse, Gap, Giorgio Armani, Apple, and Motorola have joined the (PRODUCT)RED campaign to raise awareness and money for the Global Fund to help fight AIDS in Africa. By repackaging products in red and donating a share of their profits, these companies are driving sales to socially conscious consumers.

Untapped geographies or sectors of society can also offer opportunities. Focusing on poor populations, or "the bottom of the pyramid," presents opportunities for companies willing to look beyond their traditional consumer bases. Procter & Gamble is providing small sachets of PūR, a compound normally used in large water purification plants, for home use to improve water quality for poor consumers in developing countries. It has also begun selling its high-end Pantene shampoo in two-cent single-serve packets in India and China, targeting a vast low-income population.

Stakeholder engagement also plays an important role. Evaluating impacts and the level of trust from the perspective of external stakeholders (activists, consumers, and suppliers), internal stakeholders (including employees and managers), and the top management team is important. Effective stakeholder engagement can improve trust and reputation, and it presents opportunities for responding to concerns through innovative products.

Technologies and scientific developments, even when not apparently related to one particular industry, can also be sources of opportunity. For instance, the cell phone is revolutionizing communication and banking in parts of the developing world where land lines are either nonexistent or take years for private citizens to get. Nokia considers the developing world a huge, expanding market. It has developed two cell phones aimed at the vast number of African households that will be cell phone users by 2010. In South Africa, the cell phone company MTN Group has teamed up with Standard Bank to create a "cyber bank" aimed at the vast numbers of rural poor. It requires only a phone call and a government-issued identity number to subscribe.

Methods for Identifying Opportunities

Organizations can use a variety of methods to overcome barriers and identify opportunities that have been neglected due to perceived, but unexamined, risk. Techniques to encourage such thinking include:

◆ **Learning from the Past.** Identifying issues or occurrences that were missed and that had a big impact on the organization can give insight into alternatives. This process can lead to value innovation that focuses less on the competition and more on creating new value.

◆ **Customer Sensitivity.** Understanding customer taste and retaining customers by delivering on what often seem to be highly variable demands provides enormous potential. Trying to understand customers in a way that the competition doesn't and creating systems to exploit this information can lead to great gains. Creating a customer-sensitive company by focusing on proprietary information can help achieve this goal.

◆ **Learning from Others.** Looking across industries to a seemingly totally unrelated sphere can spur innovation.

◆ **Scanning.** Actively scanning the business environment, potential competitors, or rival technologies is critical. This is what spurred Steve Jobs to realize that a missing component of digital music—and the experience of listening to such music—was the ability to buy single songs and make them portable. The iPod was rolled out within nine months and was quickly followed by iTunes Music Store for buying and downloading music to a computer.

◆ **Scenario Planning.** Scenario planning can help managers identify potentially cannibalizing technologies that help spur ideas to stay ahead of the competition and new market entrants.

◆ **See the Market Gaps, and Change the Game.** Instead of continuously trying to compete with other businesses in your category, try changing the parameters of the game. Are there gaps in the current industry model? Are there different customers to serve or another business model to generate? Could complementary products or services hold value?

◆ **Idealized Design and Competing in Advance.** Much like a well-played game of chess, idealized design formulates best outcomes by envisioning an ideal solution, then working backwards to the present. A master chess player sees the board and imagines a multiplicity of scenarios to achieve checkmate, then works backwards move-by-move to the current board. As in chess, business strategizing by projecting to an imaginary future, then moving back to the present, allows for free thinking without impediments to potential breakthroughs.

◆ **Market Sensitivity.** Looking systematically across alternative industries, strategic groups, buyer groups, and service offerings can help identify innovations and tap into unclaimed "white spaces" of new market areas.

Financial professionals can contribute greatly to the strategic planning stage of this process. Their involvement ensures more rigor from the outset because the new framework will include financial evaluation.

Screening Opportunities

Once opportunities are identified, doing a marketing analysis and screening opportunities for their potential benefit to the company can be accomplished using traditional methods. These can include estimates to:

1. Assess the increased market share that could be captured,
2. Quantify the number of new customers, or
3. Calculate the potential sales growth.

When calculations of this sort are undertaken, it becomes easier for managers to decide whether the identified innovations are worth pursuing and to include them in return on investment (ROI) or other calculations. While a marketing analysis is a necessary first step, financial professionals play a role in addressing opportunities more rigorously at the next stage by prioritizing them using strategic grid analysis, scorecards, or similar methods and subsequently including opportunities in ROI analysis.

(More information on the role of financial professionals and developing rigorous identification and measurement systems for opportunities can be found in the 2007 Management Accounting Guideline "Managing Opportunities and Risks," written by the authors and published by CMA Canada, the AICPA, and CIMA.)

2. ALIGNING WITH STRATEGY

Once opportunities are identified, screened, and prioritized, they must be aligned with corporate strategy to maximize their potential.

This requires a two-pronged approach to minimize the risks and maximize the opportunities. The first approach is to manage risks, which can be done through avoidance, sharing, transfer, and reduction. The second approach is to unlock and capture opportunities. This can be accomplished by creating a management system that supports an innovation strategy that takes either a "play to win" (PTW) or a "play not to lose" (PNTL) approach.

A "play to win" strategy relies on breakthrough innovation, drives transformation, creates market-changing ideas and products, requires investment in technology and business models, and intends to outpace competitors. But when the main objective is to preserve value and bring risks back within an acceptable range, this can be considered a "play not to lose" strategy.

A PNTL strategy relies on incremental innovations. It requires organizations to act quickly and take calculated risks—moving first or matching competitors—and it keeps the company in the game until others drop out or conditions change enough so the company can embrace a PTW strategy. PNTL isn't a long-term strategy. Rather, it's a method of preserving value during periods of flux.

Regardless of whether a company is following a play-to-win or play-not-to-lose strategy, formal analysis can aid in risk management and in identifying and capitalizing on opportunities. (You can find more on these strategies in the 2005 book *Making Innovation Work: How to Manage It, Measure It, and Profit from It* by Tony Davila, Marc J. Epstein, and Robert Shelton.)

Financial professionals play a critical role in the creation, implementation, and smooth operation of an innovation system. They are charged with creating structures, measures, and incentive and reward systems that keep the innovation system streamlined and goal oriented rather than diverging into innovation for its own sake. Financial professionals are also in the unique position of including both risks and opportunities in financial calculations for more rigorous project planning and corporate strategy.

3. EVALUATING OPPORTUNITIES

While some evaluation methods can be more informal than others, to carry out more effective appraisals it's critical to evaluate opportunities for inclusion in financial analysis. This can be done in a variety of ways, including expected profits, expected value added (profits minus the cost of capital involved in developing and running the opportunity project), or common measures such as ROI. By broadening the analysis to explicitly include social and environmental impacts and opportunities for innovation, companies can find numerous new sources of growth.

Monetizing the assessment of opportunities is critical. Measurement, while it may often lack precision, forces decision makers to address their underlying assumptions, identify the variables that can impact a project, and weigh the risks of their assumptions. Better forecasting can lead to improved decision making on process, product, and capital investment. Financial professionals can contribute greatly because of their ability to undertake such measurement and thereby make opportunity management more rigorous.

ROI, including net present value (NPV) calculations, can also be modified to include "real options" theory. This allows for flexibility in investment appraisal options and for the inclusion of the costs of risk mitigation actions that can be central to capitalizing on opportunities. Real options are a complement to and an extension of traditional calculations and should be included as a step in the application of the ROI method.

A modified ROI calculation that includes real options is a seven-step process:

1. Generating Options Using "Real Options Thinking." Real options thinking forces decision makers to explicitly consider the value of a new investment and the options it creates. It also allows for an initial investment with a longer time horizon for a return on the investment and builds in the possibility of a variety of outcomes and responses to this information as it unfolds.

2. Calculating the Benefit of Seizing the Opportunity by monetizing any gains the company could make as a result of pursuing the opportunity. This can include:

- Increased market share ($ of added revenue),
- Increased price premium,
- Savings resulting from locating in less expensive location ($ of operating costs saved),
- Reduced costs,
- New products,
- New markets,
- New channels, and
- More efficient operations.

3. Calculating Costs. The fact that the company sees an opportunity means that it probably has superior knowledge or access to risk mitigation tools that the competition lacks. But this knowledge and access come with a price tag, which should be monetized and listed.

4. Estimating Probability. The potential likelihood that each opportunity would succeed and generate revenue for the company is approximated in percent. This number is the estimated probability. But a footnote can be included in the ROI analysis that indicates that these numbers are midpoints (which would most likely settle within a range). An estimated probability should be assigned to each identified opportunity.

5. Calculating Expected Value. Multiply the *estimated cost* of the opportunity by the percent *estimated probability* of its success.

6. Calculating Net Present Value. NPV is calculated on the outcome of:

$$\underbrace{\text{NPV benefits} - \text{PV}[\overbrace{(\text{gain}_1) \times (\%\ \text{likelihood}_1) + (\text{gain}_2) \times (\%\ \text{likelihood}_2)}^{\text{expected value}}}_{\textit{net}}\ldots\text{Opptn}_N] = \text{cost of opptn.}$$

calculate NPV of issue

7. Calculating Expected Value of ROI. Once all NPVs for the opportunities have been calculated, they should be added together and inserted as line items in the normal ROI calculation. Schedules should be provided that show the calculations of benefit, expected value, likelihood, and costs. It's critical that senior management see both the process and the output of doing these calculations.

Like other estimates used in financial analysis, these estimates are often imprecise. But through proper estimating and disclosure, they can aid decision making and are relevant in management discussions. Often, decision makers will estimate ranges of costs and choose a point estimate for use in the analysis. The ranges, along with the measurement techniques in the ROI analysis, would then be included as a footnote or appendix. Although the output of this practice is important, ultimately just as critical is the process for deciding the appropriate issues, their costs, and the probabilities of occurrence. Ultimately, it's the board, the CEO, or the CFO who must choose the appropriate metric.

OPPORTUNITIES ABOUND

Moving beyond the traditional view of social and environmental issues as value destroyers to seeing them as potential value enhancers requires creativity and vision as well as a management control and performance measurement system that can lead to market success. In an increasingly complex world, social and environmental issues provide opportunities to create new competitive advantage and satisfy customers.

Wal-Mart has recognized the potential savings and successes associated with sustainability, eliminating 30% of energy used in stores, doubling the efficiency of its vehicle fleet over 10 years, and offering organic foods that make it the world's biggest seller of organic milk. Through innovation, social and environmental issues can be an impetus for both reduced costs and increased revenues. In order to garner such benefits, however, opportunities must be evaluated and handled within a system that adequately identifies, quantifies, and manages them. Through a combination of well-articulated and well-communicated sustainability strategies, use of a variety of management structures and systems, and senior management commitment to a broad set of objectives, leading companies have been able to innovate and improve their sustainability and financial performance.

This isn't limited to leadership companies. Corporate social opportunities and their substantial financial payoffs are within reach of large and small companies willing to develop rigorous strategies and systems to identify, monitor, and manage sustainability to beat the competition. ■

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Risk management is a topic at IMA's Annual Conference, June 14-18, 2008, in Tampa, Fla. For information, visit www.imaconference.org.