

MITSloan Management Review

**Maurice Berns, Andrew Townend, Zayna Khayat,
Balu Balagopal, Martin Reeves, Michael S. Hopkins
and Nina Kruschwitz**

Sustainability and Competitive Advantage

Sustainability and Competitive Advantage

Forget how business is affecting sustainability ... how is sustainability affecting business? The first annual Business of Sustainability Survey and interview project has answers.

FROM THE EDITOR

Even as attention is increasingly paid to “going green” and to the role business can play to help solve sustainability problems, the flip side of the business-and-sustainability relationship has gone underexamined. Forget how management can affect sustainability. How will sustainability change management?

The difference between the questions isn't as subtle as it might sound. The first question — how can management affect sustainability? — can be ignored. (Maybe a company still thinks addressing sustainability isn't in its strategic interest, or believes it can't afford it.) The second question, on the other hand, will come find you — whether you want to be found or not. During the research for this *MIT Sloan Management Review* special report, we heard repeatedly of the varied ways that sustainability-related issues were imposing themselves on organizations. Even a partial list of the mentioned impositions is long: volatility of resource availability and price; impending regulation; customer demands; investor pressure; emergence of new markets and evaporation of old ones; effects on attracting and retaining talent; changes in financial operations; necessity for collaboration across boundaries that used to be inviolable; pressure from communities and interest groups; growing economic uncertainty; the need to cultivate resilience; and the general hunt for strategies that could hope to succeed over the longer term instead of just tomorrow. The list goes on.

This special section of the *Review* is the result of a yearlong exploration of those sustainability-driven changes to the competitive landscape. (See a much expanded special report online at sloanreview.mit.edu/busofsustainability.)

WHAT TO THINK

▶ **First Annual Business of Sustainability Survey: The Findings**
Pg. 20

WHAT TO EXPECT

▶ **8 Reasons (You Never Thought Of) That Sustainability Will Change Management**
Pg. 27

▶ **Does Sustainability Change the Talent Equation?**
Pg. 33

WHAT TO DO

▶ **What Executives Don't Get About Sustainability (and Further Notes On the Profit Motive)**
Pg. 35

▶ **The Mini-Cases: 5 Companies, 5 Strategies, 5 Transformations**
Pg. 41

WHAT TO BECOME

▶ **Long-Viewed, See-Through, Collaborative and Retooled**
Pg. 46

▶ **One CEO's Trip From Dismissive To Convinced — a Timeline**
Pg. 47



THE SUSTAINABILITY INITIATIVE The Business of Sustainability Global Survey, the thought leaders interview series and the reports and analysis from those projects are part of the Sustainability Initiative — a collaboration between *MIT Sloan Management Review* and The Boston Consulting Group, with the sponsorship support of SAS Institute. The expanded Business of Sustainability report is available at sloanreview.mit.edu/busofsustainability. It also can be found on the home page of the Sustainability Initiative on the *MIT Sloan Management Review* Web site: sloanreview.mit.edu/sustainability.

CONTINUED FROM PAGE 19

FROM THE EDITOR

How should executives think about those changes? What effects can businesses expect to encounter? What should businesses do to exploit emerging opportunities or defend against new threats? How will organizations need to change in order to thrive under the coming competitive conditions? That's what we set out to learn.

In collaboration with knowledge partner The Boston Consulting Group, we explored the management implications of sustainability in three steps.

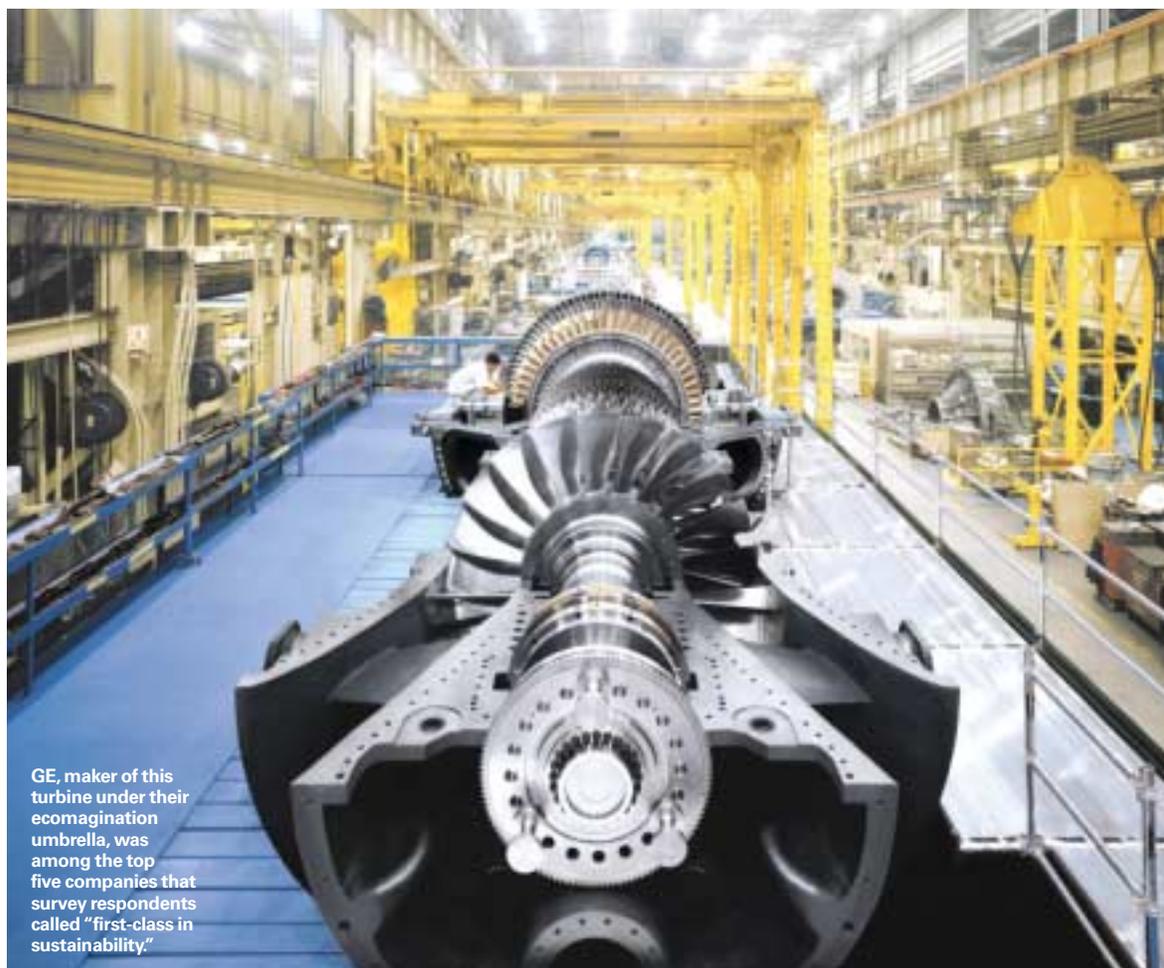
First, we interviewed leading MIT scholars and thinkers in a wide range of subject areas, including urban studies, energy science and management. (In this phase, we also interviewed BCG field experts.)

Second, we conducted in-depth interviews with more than 50 sustainability thought leaders and corporate CEOs around the world. Interviewees included executives whose companies are at the cutting edge of sustainability (including General Electric, Unilever, Nike, Royal Dutch Shell, Interface and BP).

Third, we created a questionnaire shaped by the findings from those interviews and launched the first annual Business of Sustainability Global Survey of more than 1,500 corporate executives and managers about their perspectives on the intersection of sustainability and business strategy.

The insights of both the survey respondents and the thought leader group yielded a picture of sustainability's current position on the corporate agenda — and how that position is likely to shift in the future.

— **Michael S. Hopkins,**
Editor-in-Chief
mhopkins@mit.edu



GE, maker of this turbine under their ecomagination umbrella, was among the top five companies that survey respondents called "first-class in sustainability."

The Business of Sustainability: What It Means to Managers Now

How are sustainability pressures altering the competitive landscape, and how are businesses responding? The first annual Business of Sustainability Survey and interview project found answers.

BY MAURICE BERNS, ANDREW TOWNEND, ZAYNA KHAYAT, BALU BALAGOPAL, MARTIN REEVES, MICHAEL S. HOPKINS AND NINA KRUSCHWITZ

SUSTAINABILITY IS GARNERING ever-greater public attention and debate. The subject ranks high on the legislative agendas of most governments; media coverage of the topic has proliferated; and sustainability issues are of increasing concern to humankind.

However, the business implications of sustainability merit greater scrutiny — and scrutiny of a different kind than the “green”-oriented focus that’s most common. Will sustainability change the competitive landscape and reshape the opportunities and threats that companies face? If so, how? How worried are executives and other stakeholders about the impact of sustainability efforts on the corporate bottom line? What — if anything — are companies doing now to capitalize on sustainability-driven changes? And what strategies are they pursuing to position themselves competitively for the future?

To begin answering those questions, we conducted a year-long inquiry that involved in-depth interviews with more than 50 global thought leaders, followed by the Business of Sustainability Survey of more than 1,500 worldwide executives and managers about their perspectives on the intersection of sustainability and business strategy, including their assessments of how their own companies are acting on sustainability threats or opportunities right now.¹ The survey will be conducted annually, in order to track changes in how companies are thinking and acting. (For more about the project, see “From the Editor: Sustainability and Competitive Advantage,” p. 19.)

This article can contain only the high-level findings and highlights from the interviews and survey. For a complete look at the survey results as well as more extensive reporting and analysis, go online to the *MIT Sloan Management Review*’s Web-based guide to all the articles, results and data reports yielded by the project (sloanreview.mit.edu/busofsustainability).

There, as here, you will find not only answers but, equally interestingly, questions that are coming to the fore as sustainability concerns of all kinds reshape management practices and strategy. Why is the business case for sustainability-related investments hard to build, even when opportunities seem apparent? What particular capabilities and characteristics must organizations cultivate in order to compete most effectively in the new, sustainability-altered landscape? How will the relationships among companies, communities, individuals and governments be changed by sustainability issues, and what opportunities does that present?

First, though, the immediate questions: What are executives thinking and doing about sustainability-driven concerns right now? What’s impeding their attempts to both capitalize on opportunities and defend against threats?

Here’s what our thought-leader interviews and corporate executive survey revealed.

Survey and Interview Findings: What Executives Are Thinking and Doing

When managers and executives refer to “sustainability,” what do they mean — and how important do they think it is? The survey revealed that there is no single established definition for sustainability. Companies define it in myriad ways — some focusing solely on environmental impact, others incorporating the numerous economic, societal and personal implications. Yet while companies may differ in how they define sustainability, our research indicates that they are virtually united in the view that sustainability, however defined, is and will be a major force to be reckoned with — and

one that will have a determining impact on the way their businesses think, act, manage and compete. Over 92% of respondents told us that their company was already addressing sustainability in some way.

Nor does sustainability appear to be an ephemeral strategy concern, if we can judge by how little the view of it has been affected by the pressure of the economic downturn. Fewer than one-fourth of survey respondents told us that their companies have pulled back on their commitment to sustainability during the downturn. (See “Sustainability Surviving the Downturn,” p. 25.)

Indeed, a number of thought leaders shared their belief that the downturn has accelerated a

REVISED AGENDA

The survey revealed a strong consensus that sustainability is having — and will continue to have — a material impact on how companies think and act.

- More than 92% of survey respondents said that their company was addressing sustainability.

DOWNTURN?

Sustainability is surviving the downturn.

- Fewer than 25% of survey respondents said that their company had decreased its commitment to sustainability during the downturn.

BUT ACTION LAGS

Although almost all the executives in the survey thought that sustainability would have an impact on their business and were trying to address this topic, the majority also said that their companies were not acting decisively to fully exploit the opportunities and mitigate the risks that sustainability presents.

- The majority of sustainability actions undertaken to date appear to be limited to those necessary to meet regulatory requirements.
- Almost 70% of survey respondents said that their company has not developed a clear business case for sustainability.

AGGRESSIVE ACTION YIELDING REWARDS

A small number of companies, however, are acting aggressively on sustainability — and reaping substantial rewards.

- Examples of leading companies offer some helpful ideas on how to proceed.
- Once companies begin to act aggressively, they tend to discover more opportunity, not less, than they expected to find.

THE MORE YOU KNOW, THE MORE YOU DO

Thought leaders and executives with experience in sustainability interpreted sustainability concerns (and their management implications) far more broadly than did executives lacking such experience. This understanding can open sometimes surprising opportunities for capturing advantage.

- While sustainability's so-called novice practitioners thought of the topic mostly in environmental and regulatory terms, with any benefits stemming chiefly from brand or image enhancement, practitioners with more knowledge about sustainability expanded the definition for sustainability well outside the "green" silo. They tended to consider the economic, social and even personal impacts of sustainability-related changes in the business landscape. Simply put, they saw sustainability as an integral part of value creation.
- Self-identified experts in sustainability believed more strongly in the importance of engaging with suppliers across the value chain.
- There was a high correlation between the depth of a business leader's experience with sustainability and the drivers and benefits that he or she perceived, suggesting that the more people know about sustainability, the more thoughtfully they evaluate it and the more opportunity they see in it — and the more they think it matters to how companies manage themselves and compete.

shift toward a greater corporate focus on sustainability — particularly toward sustainability-related actions that have an immediate impact on the bottom line. At the same time, several survey respondents lamented having to meet higher than normal criteria for sustainability investments.

Opinions diverge on some aspects of sustainability.

Although the points above reflect a strong convergence of views on the overarching question of sustainability's impact on business, significant divergence in opinion arose regarding particular aspects of sustainability. We highlight some of the most noteworthy differences below.

Self-identified sustainability experts viewed the topic differently than those who considered themselves novices in the area. We asked survey respondents to rate their experience with sustainability by classifying themselves as either a sustainability expert, an individual with some experience or a novice. In a number of cases, the perspectives held by these three groups were at odds.

■ Experts defined sustainability more comprehensively than novices did. While a plurality (40%) of novices defined sustainability simply as "maintaining business viability," 64% of experts used one of two widely accepted definitions: the so-called Brundtland Commission definition or the triple bottom line definition, both of which incorporate economic, environmental and social considerations.

■ Whereas 50% of the experts we surveyed said that their company had a compelling business case for sustainability, only 10% of the novices we surveyed did.

■ Experts believed more strongly in the importance of engaging suppliers across the value chain. Sixty-two percent of the experts surveyed considered it necessary to hold suppliers to specific sustainability criteria; only 25% of surveyed novices felt the same.

It is noteworthy that experts' views on the points above were largely consistent with those of the thought leaders we interviewed, with experience

being the common denominator between the groups. Simply put, the more people know about sustainability, the more thoughtfully they evaluate it and the more opportunity they see in it — and the more they think it matters to how companies position themselves and operate.

As an overall group, survey respondents held different opinions from those of the thought leaders we interviewed. On average, the thought leaders had more experience with sustainability than the survey respondents, so it was not surprising that their views diverged on several aspects of sustainability — particularly on the topic's drivers and benefits. The major points of contention included the following:



Survey respondents labeled Shell, maker of these lubricants, one of the first-class sustainability companies.

■ **Government Legislation.** Overall, survey respondents deemed government legislation the sustainability-related issue with the greatest impact on their business. Sixty-seven percent of respondents said that this issue had a significant impact on how their organization was approaching sustainability. By contrast, thought leaders placed far less emphasis on government legislation as a driving force in sustainability. Further, many of the thought leaders we interviewed cited instances in which companies had played a role in shaping the regulatory framework rather than simply reacting to it.

■ **Consumer Concerns.** Fifty-eight percent of survey respondents cited consumer concerns as having a significant impact on their companies. By contrast, although thought leaders acknowledged that consumer awareness is a reality that businesses must confront, our interviewees cited other drivers — such as climate change and other ecological forces — as more pressing.

■ **Employee Interest.** Rounding out the top three drivers was employee interest in sustainability; 56% of survey respondents selected it as an issue having a significant impact on their company. Yet among thought leaders, employee interest was deemed a far less significant issue. Thought leaders, however, consistently cited enhanced recruitment, retention and

KEY DRIVERS

According to survey respondents, the biggest drivers of corporate sustainability investments — that is, the forces that are having the greatest impact on companies — are government legislation, consumer concerns and employee interest in sustainability.

- Government legislation was cited as the principal driver by nearly all the industries — except agriculture, mining and water companies, which cited environmental pollution as the issue having the greatest impact on their companies, and companies in the media and entertainment and the technology and telecommunications industries, which cited global political security.
- Consumer concerns were viewed as more critical among companies based outside of the United States and Europe.

NEED FOR NEW CAPABILITIES

Interviewees expect sustainability to become increasingly important to business strategy and management over time, and argue the risks of failing to act are growing.

- Companies will need to develop new capabilities and characteristics, including: the ability to operate on a systemwide basis and collaborate across conventional internal and external boundaries; a culture that rewards and encourages long-term thinking; capabilities in the areas of activity measurement, process redesign and financial modeling and reporting; and skills in engaging and communicating with external stakeholders.

engagement — and other employee-related issues — as major benefits of addressing sustainability.

By a wide margin, survey respondents identified the impact on a company’s image and brand as the principal benefit of addressing sustainability. (See “What Are the Benefits of Action?”) But thought leaders rarely cited this factor (or when they did, they described it as a second-order benefit), emphasizing instead a broad continuum of rewards that were grounded more in value creation — particularly sustainability’s potential to deliver new sources of

highlighted in business articles, reports, books and sustainability indexes. The top five cited most often by survey respondents were GE, Toyota, IBM, Shell and Wal-Mart. But some lesser-known names also surfaced, such as Rio Tinto, Better Place and International Watch Co. In aggregate, these companies are demonstrating that a sustainability strategy can yield real results.

That said, we found a material gap between intent and action at most of the companies we examined. Our survey and interviews demonstrated that there is a large degree of consensus regarding the potential business impact of sustainability. And our research further confirmed that there are stirrings of activity throughout the business realm. But most companies are either not acting decisively or are falling short on execution. On the one hand, more than 60% of respondents said that their company was building awareness of its sustainability agenda. On the other hand, most companies appeared to lack an overall plan for attacking sustainability and delivering results. Many of their actions seemed defensive and tactical in nature, consisting of a variety of disconnected initiatives focused on products, facilities, employees and the greater community. While these efforts might be impressive on some levels, they largely represented only incremental changes to the business.

Clearly, companies can do more to connect their stated intent in sustainability with business impact — and they can do it in a way that maintains explicit links to the bottom line over both the short term and long term. But why aren’t they, given that they believe sustainability will materially affect their business?

Many thought leaders and survey respondents viewed sustainability as a unique business issue, both strategically and economically. They embraced the following principles:

WHAT ARE THE BENEFITS OF ACTION?

Survey respondents cite the impact on a company’s image and brand as the paramount benefit of addressing sustainability. But thought leaders differed — emphasizing instead a broad continuum of rewards grounded in value creation.



What are the greatest benefits to your organization in addressing sustainability issues?

competitive advantage. Several thought leaders offered other provocative ideas about the potential benefits of addressing sustainability. For example, some thought leaders suggested that leadership in sustainability might be viewed as a proxy for management quality.

Some companies are acting decisively and winning — but most are not. While the vast majority of companies have yet to commit aggressively to sustainability, our survey and interviews confirmed that there are noteworthy exceptions. The group of so-called first-class companies in sustainability, as identified by survey respondents, is populated by the usual suspects often

■ Sustainability has the potential to affect all aspects of a company’s operations, from development and manufacturing to sales and support functions.

■ Sustainability also has the potential to affect every value-creation lever over both the short term and longer term. Rarely has a business issue been viewed as having such a broad scope of impact.

■ There is mounting pressure from stakeholders—employees, customers, consumers, supply chain partners, competitors, investors, lenders, insurers, nongovernmental organizations, media, the government and society overall — to act.

■ The solutions to the challenges of sustainability are interdisciplinary, making effective collaboration with stakeholders particularly critical.

■ Decisions regarding sustainability have to be made against a backdrop of high uncertainty. Myriad factors muddy the waters because of their unknown timing and magnitude of impact. Such factors include government



Nike has turned sustainability-prompted design changes into materials savings and positioning gains.

legislation, demands by customers and employees and geopolitical events.

These principles make sustainability a uniquely challenging issue for business leaders to manage and address effectively.

Three major barriers impede decisive corporate action.

There are many reasons why companies are struggling to tackle sustainability more decisively. But our research points to three root causes. First, companies often lack the right information upon which to base decisions. Second, companies struggle to define the business case for value creation. Third, when companies do act, their execution is often flawed.

Some companies don’t understand what sustainability is — and what it really means to the enterprise. Our survey revealed a pervasive lack of understanding among business leaders of what sustainability really means to a company. This shortcoming results from several underlying information gaps.

■ Managers lack a common fact base about the full suite of drivers and issues that are relevant to their companies and industries. More than half of those surveyed stated a need for better frameworks for understanding sustainability.

■ As mentioned earlier, companies do not share a common definition or language for discussing sustainability — some define it very narrowly, some more broadly, others lack any corporate definition.

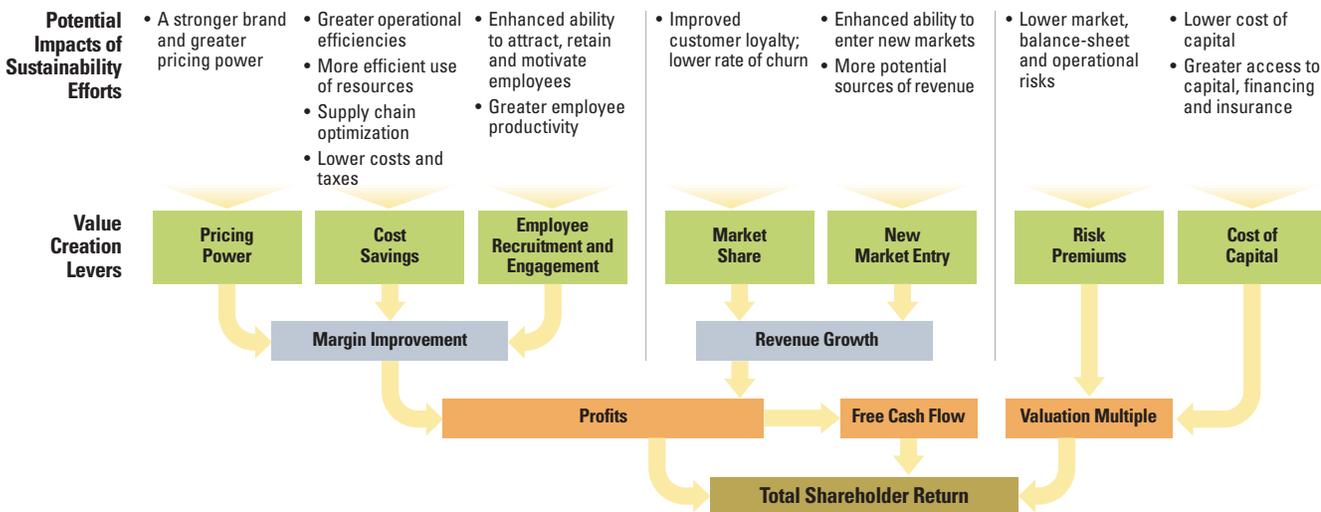
■ The goal or “prize” of concerted action is often defined too loosely and not collectively understood within the organization. And there’s often no understanding of how to measure progress once actions are undertaken.

All of these issues point to a critical need for a thorough and structured gathering and sharing of basic facts about sustainability as a first step toward helping managers to be more decisive in the choices they face.

Some companies have difficulty modeling the business case — or even finding a compelling case — for sustainability. Most survey respondents who considered themselves experts in sustainability, as well as most thought leaders, said that their company had found a compelling business case — one that

HOW SUSTAINABILITY AFFECTS VALUE CREATION

Most survey respondents who considered themselves experts in sustainability, as well as most thought leaders, say their companies have found a compelling business case for sustainability-related investments — one reflecting multiple tangible and intangible costs and benefits.



“In the last year or two, everything has changed. People are starting to suspect that these are really strategic issues that will shape the future of our businesses.... We’re in the beginning of a historic wake-up.” — PETER SENGE, SENIOR LECTURER, MIT SLOAN SCHOOL OF MANAGEMENT

reflected multiple tangible and intangible costs and benefits — for sustainability. (See “How Sustainability Affects Value Creation” for a summary of sustainability’s potential impact when viewed through the lens of shareholder value creation.)

The majority of survey respondents, however, disagreed: Almost 70% of overall respondents said that their company did not have a strong business case for sustainability. Of these, 22% claimed that the lack of a business case presented their company with its primary barrier to pursuing sustainability initiatives.

Why do companies struggle in their efforts to develop the business case for sustainability? Our survey uncovered three main challenges that trip up companies. The first challenge is *forecasting and planning beyond the one-to-five-year time horizon typical of most investment frameworks*. It is easy to assert that sustainability is about taking a long-term view. But in practice, calculating the costs and benefits of sustainability investments over time frames that sometimes span generations can be difficult with traditional economic approaches. This is further exacerbated by the short-term performance expectations of investors and analysts. See the Business of Sustainability report on sloanreview.mit.edu/busofsustainability for a framework to provide a starting point for assessing the potential of short- and long-term moves in sustainability to create value.

The second challenge is *gauging the systemwide effects of sustainability investments*. Companies find it difficult enough to identify, measure and control all of the tangible facets of their business systems. So they often do not even attempt to model intangibles or externalities such as the environmental and societal costs and benefits of their current business activities and potential moves in

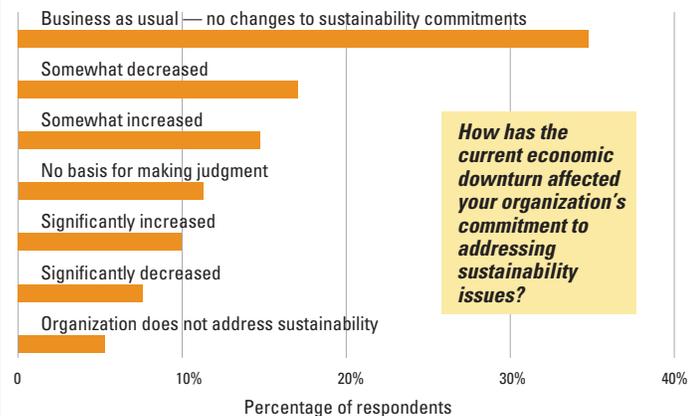
sustainability. This hinders their ability to get a true sense of the value of investments in sustainability.

The third major challenge is *planning amid high uncertainty*. Factors contributing to uncertainty include potential changes in regulation and customer preferences. Strategic planning, as traditionally practiced, is

impeding action, they often stumble over the third hurdle: execution. While it is still early days in terms of judging the effectiveness of execution in sustainability, our interviews and survey highlighted three main obstacles in executing sustainability initiatives. The first is *overcoming skepticism in organizations*. Indeed, survey

SUSTAINABILITY SURVIVING THE DOWNTURN

Fewer than one-fourth of those surveyed say their companies have cut sustainability commitments during the downturn. Thought leaders say focus on it has intensified.



deductive — companies draw on a series of standard gauges to predict where the market is heading and then design and execute strategies on the basis of those calculations. But sustainability drivers are anything but predictable, potentially requiring companies to adopt entirely new concepts and frameworks.

Many thought leaders and survey respondents with experience in sustainability believe that clarifying the business case for sustainability may be the single most effective way to accelerate decisive corporate action, since it gets to the heart of how companies decide where they will — and will not — allocate their resources and efforts.

Execution is often flawed. Even if companies surmount the first two hurdles

respondents overall cited outdated mental models and perspectives as the top internal roadblock to addressing sustainability issues.

The second obstacle in execution is *figuring out how to institutionalize the sustainability agenda throughout the corporation*.

The third major obstacle cited is *measuring, tracking and reporting sustainability efforts*.

Some of these barriers, it should be noted, will accompany any major change effort in corporate strategy and operations. But they are intensified in the case of sustainability, given the topic’s unique economic and strategic challenges and companies’ limited experience with it.

Looking Ahead: Seizing Opportunities and Mitigating Risks

As they confront the barriers to pursuing and achieving sustainability, many — if not most — business managers are struggling to understand where their companies are, where they need to go and how to get there. They do, however, share a consensus view that sustainability will have an increasingly large impact on the business landscape going forward. Thought leaders and executives who self-identify as experienced with sustainability issues point out the following emerging realities:

- Prices for food, water, energy and other resources are growing increasingly volatile. Companies that have optimized their sustainability profile and practices will be less exposed to these swings — and more resilient.
- Stakeholders — including consumers, customers, shareholders and the government — are paying more attention to

sustainability and putting pressure on companies to act.

- Governments' agendas increasingly advocate for sustainability. Companies that are proactively pursuing this goal will be less vulnerable to regulatory changes.
- Capital markets are paying more attention to sustainability and are using it as a gauge to evaluate companies and make investment decisions.
- First movers are likely to gain a commanding lead; it may be increasingly difficult for competitors to catch up.

The experiences of executives already wrestling with sustainability-driven business issues suggest that companies need not make large, immediate investments in new programs. The findings reveal instead that what is essential is that companies start to think more broadly and proactively about sustainability's potential impact on their business and industry — and begin to plan and act.

ABOUT THE AUTHORS

Maurice Berns is a partner and managing director in the London office of The Boston Consulting Group. **Andrew Townend** is a principal in the firm's Dallas office. **Zayna Khayat** is a principal in BCG's Toronto office. **Balu Balagopal** is a senior partner and managing director in the firm's Houston office. **Martin Reeves** is a senior partner and managing director in BCG's New York office. **Michael S. Hopkins** is the editor-in-chief of *MIT Sloan Management Review*. **Nina Kruschwitz** is the sustainability editor. Comment on this article or contact the authors at smrfeedback@mit.edu.

REFERENCES

1. The Sustainability Initiative research project, and the articles and reports that it yields, is a collaboration between the *MIT Sloan Management Review* and its knowledge partner, The Boston Consulting Group Inc., with additional support from initiative sponsor SAS Institute Inc. For a complete guide to the project, go to its dedicated *MIT Sloan Management Review* Web page: sloanreview.mit.edu/busofsustainability.

Reprint 51108.

Copyright © Massachusetts Institute of Technology, 2009. All rights reserved.

PDFs ■ Reprints ■ Permission to Copy ■ Back Issues

Articles published in MIT Sloan Management Review are copyrighted by the Massachusetts Institute of Technology unless otherwise specified at the end of an article.

Electronic copies of MIT Sloan Management Review articles as well as traditional reprints and back issues can be purchased on our Web site: sloanreview.mit.edu or you may order through our Business Service Center (9 a.m.-5 p.m. ET) at the phone numbers listed below.

To reproduce or transmit one or more MIT Sloan Management Review articles by electronic or mechanical means (including photocopying or archiving in any information storage or retrieval system) **requires written permission.** To request permission, use our Web site (sloanreview.mit.edu), call or e-mail:

Toll-free in U.S. and Canada: 877-727-7170

International: 617-253-7170

Fax: 617-258-9739

e-mail: smrpermissions@mit.edu

Posting of full-text SMR articles on publicly accessible Internet sites is prohibited. To obtain permission to post articles on secure and/or password-protected intranet sites, e-mail your request to smrpermissions@mit.edu.

Hyperlinking to SMR content: SMR posts abstracts of articles and selected free content at www.sloanreview.mit.edu. Hyperlinking to article abstracts or free content does not require written permission.

MIT Sloan Management Review
77 Massachusetts Ave., E60-100
Cambridge, MA 02139-4307
e-mail: smrorders@mit.edu