Measuring Innovation 2008
Squandered Opportunities
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Measuring Innovation 2008
Squandered Opportunities

A BCG Senior Management Survey

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In conjunction with its latest annual global survey on innovation—the results of which are described in our companion report, *Innovation 2008: Is the Tide Turning?*—The Boston Consulting Group invited senior executives to complete a separate survey on innovation metrics and measurement practices. This report highlights that survey’s results.

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**Acknowledgments**

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Our companion report, *Innovation 2008: Is the Tide Turning?* revealed that innovation remains high on most companies’ list of strategic priorities, and companies continue to spend liberally to pursue it. Yet for the majority of businesses, a critical element—metrics and measurement—is missing. Companies underestimate, measure the wrong things, or, in some cases, don’t measure at all, because they are under the mistaken impression that innovation is somehow different from other business processes and can’t or shouldn’t be measured. The potential cost of this error—in terms of poorly allocated resources, squandered opportunities, and bad decision making generally—is substantial.

To find out precisely where companies stand on the issue, we asked executives a range of questions about their companies’ innovation-measurement practices. Among the survey’s findings:

- Only 35 percent of executives are satisfied with their company’s current innovation-measurement practices.
- Only 43 percent of companies track innovation as rigorously as they track their core business operations, even though three out of four executives believe that their company should do so.
- Most companies—58 percent—use five or fewer metrics to measure the full range of their innovation activities.
- Only 22 percent of companies consistently tie employee incentives to innovation metrics. Thirty-six percent of companies never tie the two together.
- By far, the most universally tracked component of innovation is profitability—82 percent of respondents said that their company tracks it. Idea generation and selection and time to market are also commonly tracked, by 66 percent and 65 percent of respondents, respectively.
- The two most widely used metrics are total funds invested in growth projects (68 percent) and projected versus actual performance (68 percent).
- The metrics that have the greatest influence internally—on employee behavior and attitudes toward innovation—are customer satisfaction and revenue growth.
Innovation Metrics and Measurement in 2008

As our companion report, *Innovation 2008: Is the Tide Turning?* confirmed, companies remain staunch believers in the importance of innovation—two-thirds consider it a top-three strategic priority—and continue to spend liberally to pursue it. Yet for many businesses, a critical element is missing: metrics and measurement. Although most companies recognize or pay lip service to the importance of measurement, few of them rigorously track their innovation efforts from start to finish. And among those that do try to track innovation carefully and thoroughly, few are confident that they’re doing it right.

Given the competitive implications of poor measurement practices, companies need to act aggressively—and act now—to bring their capabilities up to speed. The cost of not doing so is truly sizable.

**The Problem: Good Intentions, Insufficient Action**

Poor measurement practices wouldn’t be such a big issue if companies were happy with the return on their spending on innovation. But most companies aren’t. Indeed, only 43 percent of the executives who responded to our 2008 survey on innovation practices said they were satisfied with the payback on their innovation investment. (See Exhibit 1.) And that percentage has been falling steadily for the past several years.

Would better measurement practices necessarily translate into a higher return on innovation investment? In our view, yes, they certainly would. An optimal measurement program yields accurate and timely information along the entire innovation-to-cash chain, from idea generation to postlaunch support, and such information is the basis for good decision making. It’s no coincidence that some of the most innovative companies also have some of the most rigorous measurement systems in place.

Most companies come up short, however, and they know it. Only 35 percent of survey respondents told us they were satisfied with their company’s measurement practices. (See Exhibit 2.) It’s no wonder. While nearly three out of four respondents told us that their company should hold its innovation efforts to the same measurement standard as its core businesses, less than half of respondents said that their company actually does so. (See Exhibit 3.)
And when companies do attempt to measure, they do a poor job. Fully 58 percent of respondents said that their company uses five or fewer metrics—far too few—to gauge the performance of their innovation efforts. (See Exhibit 4.) Perhaps as tellingly, 12 percent of respondents said that they didn’t know how many metrics their company uses.

Additionally, few companies put teeth into their measurement efforts by tying incentives and rewards to the metrics that they use. (See Exhibit 5.) Only 22 percent of respondents said that their company consistently does so; 36 percent said their company never does so. These results are appreciably worse than those we obtained in 2007, meaning that even fewer companies are leveraging what could be a very powerful tool for changing employee behaviors.

What Are Companies Doing?

So much for what companies aren’t doing measurement-wise. What are they doing? We’ll start with a look at which specific components of the innovation process they’re paying the most attention to.

Exhibit 2. Only 35 Percent of Executives Are Satisfied with Their Company’s Innovation-Measurement Practices

Exhibit 3. Most Executives Believe That Innovation Should Be Measured Rigorously, but Less Than Half of Companies Do So

Source: BCG 2008 Senior Executive Innovation Metrics Survey.
Points of Focus. The components of the innovation-to-cash process can be grouped into three categories: inputs, or resources, such as people and money; processes, which act on and transform the inputs; and outputs, or end results, which include both cash returns (and, ultimately, returns for shareholders) and indirect benefits, such as a stronger brand and acquired knowledge that can be applied to other offerings and purposes. Of the three, outputs get the most attention; 79 percent of respondents said that they track them regularly. (See Exhibit 6.) Inputs and processes are measured less universally but still by a majority—70 percent of respondents said they track the former and 61 percent said they follow the latter.

Looking more closely, we see that the single most widely tracked component of innovation, among the seven that we asked respondents to consider, is profitability: 82 percent of respondents said that their company carefully tracks the profitability of its innovation efforts. (See Exhibit 7.) The second most closely watched component is idea generation and selection (66 percent), followed by time to market (65 percent). A majority of executives also said that their company measures both R&D efficiency and the overall health of the innovation portfolio.
Metrics: The Most Used, Influential, and Indispensable. When companies do measure, which yardsticks do they use? We gave executives a list of metrics and asked them to identify the ones that their company employs. (See Exhibit 8.) The most common choices were total funds invested in growth projects and projected versus actual performance, each identified by 68 percent of respondents, followed closely by average development time per project (66 percent). (These were also the top three metrics, in the same order, in 2007.) Other commonly employed measures are revenue realized from offerings launched in the past three years, the number of projects that meet planned targets, and the allocation of investments across projects.

Equally interesting is the metrics that aren’t commonly used. The number of projects killed or tabled at each milestone, the cannibalization of existing product sales by new offerings, and the percentage of ideas funded are all measures used by fewer than 40 percent of companies.

We also asked respondents which metrics had the most impact on employee behaviors and attitudes. The most influential ones are customer satisfaction (identified by 44 percent of respondents as important), revenue growth (38 percent), new-product sales (33 percent), and cost savings (31 percent). (See Exhibit 9.)

Finally, we asked this question: If you were limited to using only three metrics, which ones would you choose? Responses were fairly broadly distributed. (See Exhibit 10.) The most commonly named metric was revenue realized from offerings launched in the past three years, although this was identified by only 22 percent of respondents. Projected versus actual performance, total funds invested in growth projects, and allocation of investments across projects were also relatively popular.

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1. We asked a group of 2,957 executives a similar question (“How does your company measure its success with innovation?”), and gave them a somewhat different list of metrics to choose from, in our 2008 Senior Executive Innovation Survey. The three most popular choices were customer satisfaction, the percentage of total sales from new products or services, and overall revenue growth. (See Innovation 2008: Is the Tide Turning? BCG Senior Management Survey, 2008.)
Exhibit 8. Total Funds Invested and Projected Versus Actual Performance Are the Most Widely Used Metrics

Source: BCG 2008 Senior Executive Innovation Metrics Survey.

Exhibit 9. Customer Satisfaction Is the Metric That Has the Greatest Impact Internally

Source: BCG 2008 Senior Executive Innovation Metrics Survey.
If your company could use only three metrics to measure its innovation performance, which would they be?

Exhibit 10. Revenue from Offerings Launched in the Past Three Years Is Considered the Most Indispensable Metric

- Revenue realized from offerings launched in the past three years (22%)
- Projected versus actual performance (14%)
- Total funds invested in growth projects (14%)
- Allocation of investments across projects (13%)
- Average development time for each project (12%)
- Number of projects that meet planned targets (10%)
- Number of projects killed or tabled at each milestone (6%)
- Percentage of ideas funded (5%)
- Cannibalization of existing product sales by new offerings (5%)

Source: BCG 2008 Senior Executive Innovation Metrics Survey.
Improving your company’s measurement practices will give you more, better, and more up-to-date information. Over time, this will translate into a significantly higher return on innovation spending. But how do you get there?

First you need to get serious about tackling the problem. We are always taken aback when we encounter executives, including some very hard-nosed and successful ones, who have either given up trying to measure innovation or have bought into the notion (advanced by some factions within R&D and by any number of outside “gurus”) that innovation can’t or shouldn’t be measured. In fact, it can and should be measured, and you need to recognize and believe that.

To succeed, you’ll need to do a number of things, both operationally and culturally. We’ll focus on two of them: installing a broad suite of measures and holding people accountable.

It is important to institute a sufficiently large battery of metrics—not five or fewer, as most companies do, but ten or twelve. Assuming they are well chosen, these metrics will give you enough information to make informed decisions and to be proactive rather than reactive. When choosing which metrics to use, keep in mind that you don’t need to track everything—doing so would be a waste of time and money—and you don’t need to track every aspect of innovation with equal rigor.

What you do need to do is identify which parts of the innovation chain are most relevant to your company’s objectives and strategy and pick your metrics accordingly. We like to break the innovation-to-cash process into four components: start-up costs, or prelaunch investment; speed, or time to market; scale, or time to volume; and support costs, including postlaunch investment. Each of these can have a determining effect on the success of a new offering and its ability to generate payback. They are represented in what we call the cash curve of innovation, a depiction of the cumulative cash investments and returns (both expected and actual) of an investment over time, from the very beginning of development to the point when the product or service is removed from the market. (See Exhibit 11.) The curve is a uniquely valuable tool for analysis and decision making regarding virtually all aspects of innovation. It forces managers to think through the dynamics of cash, helps them see clearly the impact of investment and management decisions, enables them to identify sensitive areas, and fosters discussion about how to improve the cash curve.

The right measurement program will cover all four factors that influence the curve to the degree dictated by your company’s particular strategy and operational agenda. The following are some sample metrics for each factor.

**Start-up costs**

- The number of full-time staff involved, by key function
- Operating expenses (cash and allocated)
- Capital expenditures

**Speed**

- Actual time to market
- Decision-making time
Determining which metrics are most relevant to your company will, of course, take time. As a first step, think about tracking the four that topped our list of the most indispensable: revenue realized from offerings launched in the past three years, projected versus actual performance, total funds invested in growth projects, and the allocation of investments across projects. All have their strengths and weaknesses, as reflected in the lack of a strong consensus, but they can serve as a good starting point. Consider these comments from respondents:

**Revenue realized from offerings launched in the past three years**

“Tangible, understandable, and assists in providing proof points to encourage continued focus on innovation.”

“Where the rubber meets the road—invention is not innovation until it meets customer needs and delivers revenue.”

“Provides a wake-up call on failing innovations.”

“Gives a measure of laboratory activity tied to innovation volume and velocity.”

“While this is mostly a rearview-mirror look at innovation-process effectiveness, it provides an important indicator that changes may need to be made.”

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[Exhibit 11. All Components of the Cash Curve Should BeMeasured]

Projected versus actual performance

“A reality check. It forces people to be more considered in their projections. Over time, it should lead to a better correlation as people become more adept at assessing the impact of a given innovation.”

“When the pot is finite, how it is divided really matters.”

“It’s too easy to spend too much on efficiency projects, as the return on those is easy to project on an individual basis. But growth investment is required, so you must make sure sufficient monies are spent there.”

“The portfolio view. It shows the balance of commitment toward the future versus day-to-day business.”

“It is important to understand your overall risk profile. There is no right number, but you need to be able to see the balance to understand the nature of the risk you’re taking.”

“Puts pressure on the system to invest resources that yield value.”

“Well, if we’re projecting that a project will have an NPV of $100 at year three and we’re struggling to break even, we have a huge problem. This helps with the finance area.”

“We take a lot of time setting the target metrics, based on both experience and well-grounded consumer research. We value the work put in and expect to get the returns, and we want to be able to compare and learn.”

“We are better at starting things than we are at finishing things. Therefore, looking at projected versus actual financial performance would be very helpful (and new!) for us.”

Total funds invested in growth projects

“An indicator of both opportunities and corporate commitment level.”

“Capital employed is of prime importance. If we can do more with less investment, it’s of course better”

“Need the corporate visibility to increase morale around growth.”

“You must invest something in a consistent way to ever hope to achieve success. Off and on funding guarantees failure.”

“An easy way to see how we stack up against competitors.”

Allocation of investments across projects

“Managing a broad-based innovation strategy is important and needs to be done explicitly.”

“Once you have chosen and instituted metrics, you must make them matter by holding people accountable for them. Our survey revealed that only one in five companies consistently ties incentives and rewards—or disincentives and penalties—to its innovation metrics. You need to be that company. Make innovation a central concern to your top people by tying a substantial part of their compensation to it. Don’t pretend that people will make innovation, by definition a long-term pursuit, a priority when virtually all of their pay is tied to meeting either next quarter’s numbers or some vague and far-off target that they can barely influence. Tying an explicit percentage of relevant employees’ medium- or long-term compensation to one or more of the metrics discussed above, as a number of leading companies have done, is a good first step.

But, as always, the key is to start. Pick what seems to be the right suite of metrics, put them in place, begin to track them over time, and do what’s necessary to make those metrics important to the right people internally. Yes, it would be easier to do nothing or simply to go through the motions and assume it will all work out fine. But if you’re playing to win and innovation is a necessary part of your strategy, the measurement piece is critical. So do what it takes to get it right, and reap the rewards.”
The BCG 2008 senior management survey on innovation metrics and measurement, a follow-on to our broader 2008 survey on innovation, was completed by 332 executives and managers. Participation was voluntary and anonymous. The responses broke down as follows:

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**Position**

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For Further Reading

This survey is part of BCG’s extensive work and research on innovation and the innovation-to-cash process. A sample of related publications includes the following:

**Innovation 2008: Is the Tide Turning?**
A BCG Senior Management Survey, August 2008

**Innovation 2007: A BCG Senior Management Survey**
A report by The Boston Consulting Group, July 2007

**Measuring Innovation 2007: A BCG Senior Management Survey**
A report by The Boston Consulting Group, July 2007

**Payback: Reaping the Rewards of Innovation**

**“The Secret of Innovation”**
BCG Perspectives, December 2006