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Vincent O'Connell
Don O'Sullivan

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BY VINCENT O'CONNELL AND DON O'SULLIVAN

In recent years, more and more companies have begun using nonfinancial measures as leading indicators of future financial performance. Inspired by strategic management performance tools including Robert S. Kaplan and David P. Norton's popular balanced scorecard, corporate boards have extended executive compensation schemes to embrace measures for, among other things, customer satisfaction, employee engagement, and openness to innovation. Inclusion of such measures is thought to encourage behaviors that some say have the power to increase the company's long-term value rather than simply maximizing short-term financial performance.

Although the notion of using nonfinancial metrics such as customer satisfaction to shape executive behavior is attractive to managers, the extent to which including these measures in compensation schemes actually improves company value and financial performance is a matter of debate. Research, including a study by Timothy Keiningham, Sunil Gupta, Lerzan Aksoy, and Alexander Buoye published in *MIT Sloan Management Review*, has shown, for example, that customer satisfaction is often a weak leading indicator of a company's future financial performance. Other nonfinancial measures, such as employee engagement and product quality, have displayed similar weaknesses, raising critical concerns about their usefulness.

Skepticism about the relevance of such nonfinancial metrics as useful leading indicators of financial performance has been fed by concerns that executives often lack accurate information on their company's

performance on nonfinancial metrics, the specific relationship between the nonfinancial metrics and future financial performance, and the contexts in which such relationships are likely to be more or less pronounced. Academics, including Harvard Law School professors Lucien A. Bebchuk and Jesse M. Fried, have gone so far as to argue that the inclusion of nonfinancial metrics in executive compensation schemes can actually weaken rather than improve the design of strategic performance management systems. For example, senior executives may prioritize enhanced customer satisfaction without appropriately balancing satisfaction metrics with other areas of organizational performance. In some instances, this can lead to a falloff in financial performance (for instance, if front-line employees give away products and services for free to meet their customer satisfaction goals).

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Most of the research to date about performance measures used to determine CEO compensation has focused on standard financial indicators such as accounting earnings and stock performance. Studies have found that linking compensation to accounting earnings incentivizes CEOs to maximize short-term financial performance. What's more, many observers have noted, emphasizing such measures can encourage executives to pay *too much* attention to short-term results at the expense of long-term value creation. As an alternative, many companies have added stock price into executive compensation formulas. Unfortunately, there are problems with that approach, too: Stock prices are influenced by factors that are beyond an executive's control. In response, some companies are tying compensation not only to financial measures but also to nonfinancial metrics such as customer satisfaction — as a way to overcome the limitations of financial metrics in influencing executive behavior and increasing future value.

We conducted a series of studies to explore the relationship between nonfinancial metrics and future financial performance, and the usefulness of nonfinancial metrics in enhancing the efficacy of CEO compensation schemes. One of our goals was to explore the relationship between customer satisfaction — perhaps the most commonly used nonfinancial metric in performance management systems — and a company's future financial performance (something we call customer satisfaction's *lead indicator strength*).

To conduct our analysis, we developed an integrated data set including customer satisfaction, CEO compensation, and financial and stock market performance data for a sample of publicly traded U.S. companies between 1994 and 2010. Companies were selected based on whether they were covered by the American Customer Satisfaction Index (an econometric model developed at the University of Michigan) in a given year. That index typically reports on customer satisfaction for over 300 companies in 43 industries and 10 economic sectors. (Since the companies covered by this index change from year to year, we had 465 company-year observations in our final sample.) We drew data on CEO compensation from ExecuComp, financial data from the Compustat database, and stock market performance data from the Center for Research in Security Prices at the Booth School of Business at the University of Chicago. (Detailed findings from our study were published in *Strategic Management Journal*. See “Related Research.”)

As a first step, we estimated the lead indicator strength of customer satisfaction for each individual company. Our overarching goal here was to establish the extent to which customer satisfaction in the current period drives a company's future financial performance. Estimating the lead indicator strength of a nonfinancial metric can be complicated — at a minimum, you need to be able to isolate that factor from other contributing factors. We used a technique from econometrics called “panel data analysis” to assess lead indicator strength. It involves measuring the extent to which customer satisfaction in the current year influences next year's return on assets (ROA). Since future ROA can be impacted by a myriad of other factors (such as past ROA, company size, and industry-specific factors such as sales growth), we had to control for each of these factors to isolate the *incremental* impact of customer satisfaction. The techniques we used ensured that we were able to isolate the specific impact of customer satisfaction on future ROA. We then sought to establish whether companies placed greater weight on customer satisfaction for CEO compensation purposes when its lead indicator strength was stronger.

Testing Lead Indicator Strength

We found that there were notable variations in the lead indicator strength of customer satisfaction in a sample of companies drawn from different industries. For instance, for a chemical company in our sample, customer satisfaction's lead indicator strength was negative; this finding is consistent with prior research suggesting that in many industries, the expense required to increase customer satisfaction can't be justified. By contrast, for a telecommunications company we studied, customer satisfaction was a strong leading indicator; this finding is consistent with evidence showing that in many service industries, customer satisfaction reduces customer churn and price sensitivity. For a professional service firm in our sample, the lead indicator strength of customer satisfaction was weak; this is consistent with evidence showing that for such services, measures such as trust provide a clearer indication of the economic benefits than customer satisfaction. We also found that companies could materially enhance their future value by making sure the way in which CEO compensation was linked to customer satisfaction was consistent with customer satisfaction's lead indicator strength for that organization.

One of our key findings is that when it comes to nonfinancial metrics, there's no such thing as one size fits all. By utilizing the power inherent in our measures of lead indicator strength, companies can avoid the pitfalls — and cost — of incentivizing the wrong measures. For example, in the case of the chemical company in our study, where customer satisfaction had a negative lead indicator strength, incentivizing customer satisfaction wouldn't make sense; emphasizing customer satisfaction would move the organizational

RELATED RESEARCH

► V. O'Connell and D. O'Sullivan, “The Influence of Lead Indicator Strength on the Use of Nonfinancial Measures in Performance Management: Evidence from CEO Compensation Schemes,” *Strategic Management Journal* 35, no. 6 (June 2014): 826-844.

focus in the wrong direction, leading to a long-term erosion of company value. By contrast, for the communications company, where customer satisfaction's lead indicator strength was strongly positive, incentivizing executives based on customer satisfaction is likely to enhance value. Clearly, then, knowledge about — and application of — lead indicator strength can help companies avoid the potential pitfalls associated with using nonfinancial metrics for incentivizing and rewarding executives.

We found that many companies have the ability to measure and weight customer satisfaction in a way that's consistent with its lead indicator strength for that organization. For those companies, the capacity to utilize customer satisfaction in this way suggests that they could incorporate nonfinancial metrics in strategic performance management frameworks more effectively than we previously thought. While we focus on the role of nonfinancial measures in executive compensation schemes, our approach also has broader relevance. Capturing the lead indicator strength of nonfinancial measures is useful in determining the appropriate weighting of nonfinancial metrics in strategic performance management frameworks such as the balanced scorecard. Consequently, we believe that our approach can significantly augment performance management frameworks — and improve their design.

In considering nonfinancial metrics for strategic performance management frameworks, we think the first step should be to consider the merits of various measures in terms of their lead indicator strength. Boards of directors and executives charged with the design of performance management frameworks should be mindful of the importance of knowing the strength of nonfinancial metrics as lead indicators and also the importance of applying such metrics appropriately.

Companies seeking to use our lead indicator strength concept for nonfinancial metrics should follow a four-stage process:

1. Assess the strength of the relationship between your company's key nonfinancial indicators and future financial performance. Typically this can be determined by analysis of historical data — and amended for any shift in the company's competitive context. This is a critical initial step, since it provides management teams with a clear line of sight on the relevance of the company's nonfinancial metrics.
2. Direct attention, resources, and incentives to each nonfinancial metric based on an understanding of the measure's lead indicator strength. A measure's lead indicator strength provides an initial baseline upon which management can base such decisions.
3. Monitor the lead indicator strength of each nonfinancial metric on a regular basis to ensure that the attention you give a measure doesn't lead to an erosion of the measure's relationship with future profitability. This allows companies to react to changes in a nonfinancial metric's lead indicator strength that may

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arise from changing competitive circumstances or diminishing or increasing returns.

4. Ensure that new measures are assessed for lead indicator strength as they become relevant to future financial performance and to the company's strategic objectives.

Our research confirmed that customer satisfaction is often a strong positive leading indicator of future financial performance. However, customer satisfaction can also be a weak leading indicator for some companies, and, in others, it can be a negative leading indicator of future financial performance. (As noted earlier, it's a negative leading indicator when the costs of enhancing customer satisfaction via product or service improvements outweigh the benefits emerging from those improvements, such as improved customer loyalty and retention.) Companies can benefit from learning to gauge the direction and strength of the lead indicator of customer satisfaction (and, by extension, other nonfinancial metrics). Knowledge of whether a nonfinancial metric such as customer satisfaction is a strongly positive, weakly positive, or negative lead indicator of future financial performance can help companies avoid the pitfalls of using a nonfinancial metric to incentivize the wrong behavior. Once lead indicator strength is properly understood and applied, managers can begin to use nonfinancial metrics more effectively to improve financial performance, design relevant incentive structures, and enhance long-term value.

Most companies can benefit from a fuller understanding of the lead indicator strength of the nonfinancial metrics they use (or could potentially use) within strategic performance management frameworks. Although it's necessary to begin with reliable data about nonfinancial metrics, in our experience, most companies already have this type of data and can simply apply the data that's already available to them.

Vincent O'Connell is a professor of accounting at Gulf University for Science & Technology in West Mishref, Kuwait, and a professor of accounting at Amsterdam Business School at the University of Amsterdam in the Netherlands. Don O'Sullivan is an associate professor of marketing at Melbourne Business School at the University of Melbourne in Australia. Comment on this article at <http://sloanreview.mit.edu/x/57418>, or contact the authors at smrfeedback@mit.edu.

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