Vol. 16 No. 4
MANAGEMENT ACCOUNTING Quarterly
Summer 2015

Encouraging Employees to Support Corporate Sustainability Efforts

By Andrew J. Felo, CMA, CFM, CFE, Ph.D.; Kimberly K. Merriman, Ph.D.; Sagnika Sen, Ph.D.; and Barrie E. Litzky, Ph.D.

EXECUTIVE SUMMARY

While executive officers and directors increasingly support sustainability efforts, getting employees throughout the company to back these efforts has presented more of a challenge. The authors explored how companies can motivate employees beyond the C-suite to choose to invest in projects expected to improve sustainability performance.

This article is based on research funded by a research grant from the IMA Research Foundation.

In 1995, IMA® (Institute of Management Accountants) issued a Statement on Management Accounting (SMA) titled *Implementing Corporate Environmental Strategies*, which called for the integration of environmental impact into performance evaluation systems. The report states that "the environmental performance of individuals, facilities, and divisions must be an integral part of the performance evaluation systems." It further suggests that "organizations revise their performance evaluation systems to make salary, bonus, and promotion policies consistent with their stated corporate environmental goals." Past empirical research supports the importance of modifying a firm's performance evaluation system to encourage social and environmental performance in addition to the traditional emphasis on financial performance.[1]

Both past research and practice, however, have tended to focus such systems at the top executive level. To continue the momentum, companies need to encourage all their employees to support sustainability initiatives. In this article, we discuss the results of an experiment we conducted that investigated how companies can motivate decision makers below the top executive level to choose projects that involve sustainability issues. We also explain how management accountants can contribute to performance management systems and organizational reporting practices that encourage employees below the

C-suite to engage in sustainability initiatives.

What We Investigated

Motivating employees to undertake investments that promise improvements in sustainability proves difficult, mainly because organizations tend to reward employees for short-term financial performance. Projects to improve sustainability, however, often involve substantial upfront costs, which can reduce short-term profitability metrics, such as return on sales and return on assets. In addition, employees tend to perceive that these types of investments take much longer to provide returns than do traditional investments, such as reducing costs or expanding capacity. Therefore, managers probably will take on sustainability projects only when their compensation goes beyond ties to short-term financial outcomes to include long-term financial outcomes as well as social and environmental outcomes.

The challenge for being able to motivate employees below the C-suite is that their performance rarely has a direct impact on the firm's stock price. Therefore, their compensation structures should include distinct incentives tied to environmental and sustainability outcomes in addition to the traditional incentives tied to short-term financial outcomes. This balanced approach to compensation can encourage employees to focus their efforts across the multiple performance objectives that sustainability requires.

As we will discuss, companies may want to use a balanced scorecard with both types of performance measures (financial and sustainability) to evaluate and motivate employees below the C-suite level. We investigate whether including sustainability-based performance measures increases the likelihood that sustainability initiatives will be undertaken.

Although many sustainability initiatives *reduce* income in the short run, some can actually *increase* income in the short run in addition to improving sustainability performance in the long run. For example, whereas retooling a manufacturing plant to reduce carbon emissions requires a capital outlay without a short-run financial return, adopting energy-efficient lighting may reduce operating costs immediately. We classify the lighting project as a *complementary* project because the sustainability benefits reinforce the financial benefits, but we classify the retooling project as a *substitute* project because the sustainability benefits substitute for (replace) financial benefits. We also investigate whether a project that offers rewards through both financial and sustainability improvements is more attractive than a project that offers financial benefits only.

Even though financial concerns certainly impact decisions, they are not the only types of factors that can impact behavior. Social norms and expectations influence individuals either consciously or unconsciously. Behavior consistent with social norms and expectations can help a person fit a particular situation. For example, if an organization positions itself as focusing on sustainability, then employees who act in a way that enhances sustainability fit into the organization, while those who do not act in this way will not fit. Think of fitting in as another form of financial incentive because fitting in improves long-term employment and advancement prospects. We also test whether people in firms where sustainability is an important part of the organization's social norms are more likely to accept a project that offers sustainability improvements.

Our Study

Using a professional survey organization, we administered a Web-based survey to 400 people who live in the United States and were working at the time of the survey. Because we were interested in how people make decisions concerning sustainability projects, we did not limit our sample to accountants. The professional survey organization guaranteed us 400 usable respondents. Participation was voluntary, and responses were confidential since we did not capture names or identifying characteristics. A large majority of respondents (75%) had 10 or more years of work experience. Our sample was about evenly split between men and women, and respondents worked in a wide variety of occupations. See Table 1 for a breakdown of our sample based on work experience, gender, occupation, and age.

Our study investigated two factors that could be related to the decision to undertake a sustainability initiative: performance target type and organization norms. We used two norms for each factor, giving us a total of four scenarios. The two performance targets were cost savings and reduction in carbon footprint. We defined

Table 1: Demographics of Survey Sample

Characteristic	*n* (*N*=400)	Percentage
Total Work Experience		
< 1 year	2	1%
1-2 years	22	6%
3-5 years	28	7%
6-10 years	47	12%
> 10 years	301	75%
Gender		
Male	212	53%
Female	188	47%
Occupation		
Administrative/clerical	64	16%
Management	95	24%
Professional (nonmanagement)	74	19%
Sales	26	7%
Service	42	11%
Technical	28	7%
Other	71	18%
Age		
18-24	27	7%
25-34	124	31%
35-44	91	23%
45-54	86	22%
55-64	43	11%
> 64	29	7%

organization norms through each organization's stated business strategy: reducing cost and improving sustainability.

Scenarios

The scenario required respondents, in their role as a manager, to allocate $200,000 of project development funds among three projects that were equally risky. Because each project was expected to cost $100,000, the manager needed to choose two of the three. Two were standard cost-savings projects—one for redesigning the production process and the other for redesigning the inventory system. Both were expected to reduce operating costs. The third project, focused primarily on sustainability, involved reducing the firm's carbon footprint through better packaging.

We told subjects that they would earn a bonus of 10% of expected cost savings and $20,000 for reducing the firm's carbon footprint by 30%. Both cost-savings projects would reduce costs by $200,000, resulting in a bonus of $20,000 for each project. We used the same version of these projects for all subjects and two versions of the sustainability project. In the first version, we expected the substitute project to reduce the company's carbon footprint by 30%, resulting in a $20,000 bonus. In the second version, the complementary project would also lower costs by $50,000, resulting in a total bonus of $25,000. Having two versions of this project allowed us to test whether a project offering rewards for both financial and sustainability improvements is more attractive than a project offering rewards for financial improvements only.

We used two organizations in our study: CostLow, a manufacturing company focused on cost savings, and Organica, a producer of organic goods for everyday use focused on sustainability. The stated strategy for each firm signals the organization norms the firm values the most. Using two organizations allowed us to test whether people are more likely to accept a project that offers sustainability improvements in firms where sustainability is an important part of the organization's social norms.

Overall, we had four experimental conditions (shown in Table 2). We randomly assigned participants to one of the four conditions, and each subject completed the survey only one time.

Table 2: Our Experimental Design

	Substitute Project	Complementary Project
CostLow	Condition 1	Condition 2
Organica	Condition 3	Condition 4

Empirical Results

To assess the effectiveness of our experimental manipulation for organizational strategy and values, we asked participants to rate the degree to which the company in the scenario was highly concerned with the environment and profits using a scale of 1 (strongly disagree) to 5 (strongly agree). If subjects receiving the Organica scenarios did not believe that the company was more concerned with the environment than subjects receiving the CostLow scenarios, then it would be impossible to determine the impact that organizational values played in their decisions. As expected, perceived organizational concern for the environment varied across the experimental conditions, meaning that subjects believed Organica to be more concerned with the environment than CostLow.

Perceived organizational concern for profits, however, was consistently high for both organizations in all four scenarios. In other words, respondents did not perceive Organica to be any less concerned with profits than CostLow. This suggests, perhaps not surprisingly, that financial concerns are an assumed priority of for-profit organizations regardless of the explicit values an organization conveys.

Table 3 contains results for how often subjects chose to invest in the sustainability project in each of the four conditions. Overall, approximately 69% of subjects across all four conditions chose this project. There were 100 respondents per condition. In the Substitute Project/LowCost condition, there was no obvious incentive to choose this project because the bonuses for all the projects were identical ($20,000), and the organization did not focus explicitly on sustainability. Still, 65 people chose the sustainability project. In the Complementary Project/LowCost condition, 74 subjects chose the sustainability project. In the Substitute Project/Organica condition, 70 people chose the sustainability project, and in the Complementary Project/Organica condition, 68 subjects did.

Table 3: Sustainability Project Choices by Condition

	Substitute Project	Complementary Project
CostLow	Condition 1 65 out of 100	Condition 2 74 out of 100
Organica	Condition 3 70 out of 100	Condition 4 68 out of 100

We expected the percentage in the Complementary Project/Organica condition to be the highest because the project offered a higher bonus and Organica explicitly valued sustainability. Unexpectedly, we found that subjects in the Complementary Project/CostLow condition chose the sustainability project most frequently. An explanation is that defining a sustainability initiative in financial terms makes the project more attractive to employees in organizations that focus explicitly on cost savings. This implies that organizations focusing explicitly on sustainability need to remind employees that cost reduction is an important goal, too.

Consistently across all four conditions, subjects chose the Green project at a higher-than-chance rate in each experimental condition (69% overall). Simply defining and rewarding environmental objectives alone was sufficient to motivate support for this initiative vs. a cost-savings initiative with similar—if not lower—expected personal benefits. This is important because only 25% of our subjects reported that their organizations tie compensation to sustainability performance. A majority of organizations are missing out on a relatively simple way to encourage employees to focus on sustainability. Our results indicate that management accountants should push their organizations to include performance measures related to sustainability on their balanced scorecards or other performance measurement systems.

To test whether a project that offers rewards through both financial and sustainability improvements was more attractive than a project that offers rewards on only one dimension, we compared the percentage of subjects who chose the sustainability project in the two Complementary Project conditions to the percentage in the two Substitute Project conditions. Specifically, we compared the average of Conditions 2 and 4 to the average of Conditions 1 and 3. From a purely economic standpoint, we expected a higher percentage of subjects to choose the sustainability project in the Complementary Project conditions because it offers the opportunity to earn a higher bonus. Although a higher percentage (71% vs. 67.5%) chose the Green project when it offered both financial and sustainability improvements, the difference is not statistically significant. Despite the opportunity to earn a higher bonus ($25,000 vs. $20,000), respondents did not view the sustainability project as more attractive.

From a sustainability perspective, we can look at the results in two ways. The first way is in a negative light because even the chance to earn a higher bonus was not enough to get all the subjects to choose the sustainability project. The second way is in a positive light because subjects chose the sustainability project at a greater-than-chance rate when it was just as attractive financially as the cost-savings project.

To test whether people are more likely to accept a project that offers sustainability improvements in firms where sustainability is an explicit part of the organization's values, we compared the percentage of subjects who chose the sustainability project in the two scenarios where Organica is the organization to the percentage in the two scenarios where CostLow is the organization. Again, no statistical evidence supports this hypothesis. Specifically, 69% of subjects with the Organica scenarios and 69.5% of those with the CostLow scenarios chose the sustainability project. Although having an explicit focus on sustainability did not increase the likelihood of accepting the sustainability project, not having that explicit focus did not decrease the likelihood, either. Table 3 summarizes these results.

Additional Analysis

The premise behind expecting more subjects receiving the Organica scenarios to choose the sustainability project is that subjects perceived that Organica was more concerned with the environment than CostLow was. Although subjects in the Organica scenarios perceived the organization to be more concerned with the environment (3.83 out of 5), the subjects in the CostLow scenarios perceived the organization to be relatively concerned (average of 3.57 out of 5). This implies that a significant number of subjects in the CostLow scenarios perceived the firm to be concerned with the environment, despite the stated focus on cost savings.

We tested the relationship between this perception and the likelihood of choosing the Green project, regardless of scenario. This perception explains 10.2% of the variance in whether subjects chose the sustainability project. These results indicate that their perceptions about the firm's concern for the environment were an important factor in whether employees chose to invest in the sustainability project.

We also asked subjects to explain their project choices. The explanations in Table 4 seem to indicate a status quo bias toward financial vs. sustainability performance measures. In other words, employees focused on financial performance measures, regardless of a company's organizational values or their own personal incentives. These explanations tell us that financial performance measures are often the default measures on

Table 4. Explanations from Subjects

"Because [cost-savings objectives] will truly help the company succeed, unlike the carbon footprint BS."
"The first two [cost-savings objectives] show a black-and-white dollar amount of savings. The third shows no saving. I know it's important to do all we can to reduce pollution, but I don't think I'd get this one past the stockholders. I could see it now: 'We're going to reduce our carbon footprint by 30%...but it's going to cost us $100,000.' I'd be on the street corner selling apples."
"Green consumption is not a priority."
"My first obligation is to make the company as reasonably profitable as possible. The increased profitability will then allow us to invest in 'good citizenship'-type considerations."
"Companies are in business to make money and grow."
"I chose A and B [cost-savings objectives] because they will result in the most savings to the company (although less bonus/incentive pay for me). It would be difficult to choose an option that means less of a savings to the company unless the company fully supported this."

which employees focus, regardless of organizational values or even personal financial incentives.

Implications for Engaging Employees in Sustainability Initiatives

Our findings suggest that simply specifying and rewarding environmental objectives in line with financial objectives engages a significant percentage of employees, but, again, only 25% report that their employers do this. The relatively few companies that do use employee rewards to encourage Green behavior tend to do so with recognition and prizes rather than pay, according to a 2009 survey by Buck Consultants.[2]

Some organizations link employee compensation to organizational sustainability by attaching incentives to environmental objectives at the operational level. Making sustainability performance one dimension of performance reviews provides a more consistent way of doing so. Accordingly, management accountants should shift their emphasis from the broad interpretation of sustainable performance for CEOs and external stakeholders to include the operational aspects most relevant to nonexecutive employees. Again, to do this, companies can include sustainability performance measures on their balanced scorecards and other performance measurement systems. It is reasonable, therefore, that financial objectives would represent the status quo to employees since profitability is historically the primary way stakeholders evaluate organizations and individuals.

Sustainability objectives, on the other hand, are a more recent and novel consideration, so employees likely perceive them as different from—and possibly in conflict with—the status quo. Even when two projects result in the same expected performance bonus, employees will tend to choose the project that addresses financial objectives because it is more familiar to them—or the status quo.

To motivate more employees to undertake sustainability investments, companies may need to frame sustainability objectives in financial rather than, or in addition to, the less familiar—and potentially competing—sustainability terms. For example, instead of stating that less packaging for a product will reduce the firm's carbon footprint, a firm could emphasize that less packaging saves the firm money. In this way, a sustainability project is actually consistent with the status quo.

Framing sustainability objectives in financial terms, however, does nothing to overcome employees' status quo bias for financial objectives. As our results indicate, explicitly stating that an organization values sustainability is also unlikely to overcome the bias. After all, perceptions pertaining to the status quo are by definition deeply held and not something that changes easily or quickly. An organization may overcome this bias over time through continued emphasis on sustainability objectives in line with financial objectives. Internal reporting on the "triple bottom line"—people, planet, and profits—provides this needed continuous emphasis. In a pivotal role, management accountants, therefore, ultimately influence employee support of organizational sustainability.

The Sustainability Influence

This study investigated the use of performance incentives and expressed organizational values as a means to encourage support for sustainability initiatives. We found that the reporting and direct rewarding of environmental objectives proved sufficient to motivate majority support for such an initiative—regardless of an organization's stated values. Thus internal reporting of sustainability metrics is indeed important to performance management in this area and, in this case, is more impactful than a company's stated values. In other words, rewarding behavior is more effective than talking about company values.

We also found a positive relationship between how subjects perceived the company's concern for sustainability and support for the sustainability project. Specifically, subjects who perceived that the company had a higher concern for sustainability chose the sustainability project more often. These perceptions of organizational concern for sustainability, however, were not identical to the company's stated values (CostLow vs. Organica). Instead, they varied based on whether the project had both financial and sustainability benefits. So it would seem that internal sustainability reporting has both a direct influence on performance management—by conveying performance metrics—and an indirect influence through informing individual perceptions of organizational values.

Thus companies that talk about the importance of sustainability and back up that talk with their performance management systems motivate their employees to accept sustainability projects in two ways: through defining and rewarding sustainable performance objectives and by clarifying and making salient how sustainability initiatives relate to broader organizational values and objectives. ■

Andrew J. Felo, CMA, CFM, CFE, Ph.D., is an associate professor of accounting in the H. Wayne Huizenga College of Business and Entrepreneurship at Nova Southeastern University in Fort Lauderdale, Fla. He is also a member of IMA's South Florida Chapter. You can reach Andrew at (954) 262-5279 or af878@huizenga.nova.edu.

Kimberly K. Merriman, Ph.D., is an associate professor of management in the Manning School of Business at the University of Massachusetts Lowell. You can reach Kimberly at (978) 934-2657 or kimberly_merriman@uml.edu.

Sagnika Sen, Ph.D., is an associate professor of information systems in the Division of Management and Organization at The Pennsylvania State University Great Valley School of Graduate Professional Studies in Malvern, Pa. You can reach Sagnika at (610) 725-5361 or sagnika.sen@psu.edu.

Barrie E. Litzky, Ph.D., is an associate professor of management and organization in the Division of Management and Organization at The Pennsylvania State University Great Valley School of Graduate Professional Studies in Malvern, Pa. You can reach Barrie at (610) 725-5286 or bx126@psu.edu.

Endnotes

1 For an example, see Marc J. Epstein, Adriana Rejc Buhovac, and Kristi Yuthas, "Implementing Sustainability: The Role of Leadership and Organizational Culture," *Strategic Finance*, April 2010, pp. 41-47.

2 Buck Consultants, "The Greening of HR Survey Results," January 2009.