Donna L. Hoffman and Marek Fodor

Can You Measure the ROI of Your Social Media Marketing?
Can You Measure the ROI of Your Social Media Marketing?

You can. But it requires a new set of measurements that begins with tracking the customers’ investments—not yours.

BY DONNA L. HOFFMAN AND MAREK FODOR

As social media applications like Facebook (here, cofounder Mark Zuckerberg) have changed the ways consumers interact with brands, companies have struggled to keep up. Target, Dell, Burger King and more are trying to learn what’s effective.

As managers become more comfortable with including blogs and social networks as part of their integrated marketing communications, they have naturally turned their attention to questions regarding the return on investment of social media. Clearly, there is no shortage of interest in the topic. A quick Google search recently for “ROI social media” returned over 2.5 million hits, many seemingly relevant. Internet marketing and online retailing conferences now devote attention to ROI issues, and managers are asking themselves every day, “What’s the ROI of [substitute social media application here]?” Blog posts, white papers and case studies prepared by social media gurus, consultants and industry analysts abound, yet the answer remains largely unsatisfying. That isn’t good, especially when the CEO and CFO are demanding evidence of potential ROI before allocating dollars to marketing efforts.1
We understand the pressures and the desire to quantify the return generated by investing in social media, but we believe most marketers are approaching the issue the wrong way.

Effective social media measurement should start by turning the traditional ROI approach on its head. That is, instead of emphasizing their own marketing investments and calculating the returns in terms of customer response, managers should begin by considering consumer motivations to use social media and then measure the social media investments customers make as they engage with the marketers’ brands.

Handling the measurements this way makes much more sense. It takes into account not only short-term goals such as increasing sales in the next month via a social media marketing campaign or reducing costs next quarter due to more responsive online support forums, but also the long-term returns of significant corporate investment in social media.

We will explain our reasoning in detail and suggest some guidelines for better integrating social media into your overall marketing strategy, but first a quick example of the kind of radical rethinking we believe is called for.

Turning Your Thinking Upside Down

In calculating social media ROI, most marketers start by measuring the cost of launching a blog, for example, and then seek to calculate the return on sales, say, from that social media investment. But a company could also start by thinking about what marketing objectives such a blog might satisfy (e.g., brand engagement), why its customers would visit the blog (e.g., to learn about new products) and what behaviors they might engage in once they got there (e.g., post a comment about a recent consumption experience) that could be linked to the company’s marketing objectives.

These behaviors then can be considered (and measured) as customer investments in the marketer’s social media efforts. This suggests that returns from social media investments will not always be measured in dollars, but also in customer behaviors (consumer investments) tied to particular social media applications. Consumer investments include obvious measures such as the number of visits and time spent with the application (the blog in this case) as well as more active investments, such as the valence of blog comments and the number of Facebook updates and Twitter pages about the brand. These investments can then be used to measure key marketing outcomes such as changes in awareness levels or word-of-mouth increases over time.

Although what we are proposing might seem radical, we believe you have no choice.

Traditional media measurement seems almost quaint in today’s dynamic and increasingly complex media environment. Marketers are struggling with social media measurement partly because the frameworks are still largely driven by “reach and frequency” and are ill-suited to the interactive media environment.

On one side are the managers in the trenches whose experience and gut feelings tell them that social media are important, even as they struggle with how to quantify this. On the other side is top management, who may not be 100% convinced about the value of social media or fully understand them—and even if they “get it” in principle, they still want to see the numbers. This tension explains the constant questioning about ROI in emerging advertising media like Twitter.

While managers certainly need hard numbers to know whether their investments are paying off, they represent a narrow “show me the return” focus rooted in a traditional mainstream media. This narrow focus has two problems. First, it is oriented to the short term (“show me how my company’s tweets will improve sales next quarter”). Developing meaningful relationships with customers takes time because online relationships involve interactive “conversations,” and some managers still do not fully appreciate that they are entering a brave new world of “relationships” with customers.

This is a world in which customers are fully in control of their online experiences and where their motivations lead them to connect online with other consumers while they create and consume online content, much of it user- rather than marketer-generated. These four key motivations — connections, creation, consumption and control — drive consumer use of social media. This “4c’s” perspective is important because it leads to a consumer-oriented framework for evaluating social media. Most managers still consider...
social media applications as “just another” traditional marketing communications vehicle. That is a mistake. The social media environment is largely consumer— not marketer— controlled. And marketers who don’t understand that do so at their peril. (See “The Worst That Can Happen Is Worse Than You Think.”)

Second, and more importantly, the narrow focus ignores more qualitative objectives — such as the value of a tweet about a brand — that flow from the unique capabilities of the Internet and have no obvious analogues with traditional media metrics. This is a powerful point that is often overlooked.

Both these things call for a different way of thinking about how to measure social media. Let’s talk about how you might do it.

Social Media Objectives Drive Social Media Metrics
As a first step, marketers should focus on objectives that explicitly recognize the value of operating in the social media environment. Most managers feel pressure to emphasize traditional objectives such as direct sales, direct cost reductions or increases in market share from social media. Ultimately, of course, outcomes like these are the bottom line for any manager. And a marketer who wants to know the immediate effect on sales of a particular social media campaign can do so relatively easily by tracking the revenue generated from the dollars spent, even if tying social media actions directly to sales is difficult. It is becoming increasingly obvious that social media can lead to real cost savings, such as when customers serve as their own version of a company’s toll-free help desk through FAQs on user forums. It is also clear that social media can improve the efficiency of market research efforts when, for example, marketers set up online prediction markets to crowdsource new ideas or mine online forums that allow customers to comment on product concepts and offer improvements for existing products.

Sales, cost efficiencies, product development and market research are obvious objectives, but in our development of appropriate social media metrics we want to emphasize objectives that take advantage of the distinctive characteristics of social media. In the social media environment, marketers have unique opportunities to develop social media programs that tackle awareness, engagement and word-of-mouth objectives. Social media applications can fulfill any of these objectives, where the appropriate set of metrics depends on the objective. (See “Relevant Metrics for Social Media Applications Organized by Key Social Media Objectives,” p. 44.)

To get an ROI estimate, managers would link the social media metrics to an additional set of proxy benchmarks (e.g., the likelihood of future...
# Relevant Metrics for Social Media Applications Organized by Key Social Media Objectives

This table organizes the various social metrics for social media by classifying them according to social media applications and social media performance objectives. While it is not exhaustive, it should give marketers a useful starting point for measuring the effectiveness of social media efforts because all of the metrics listed are easily measured.

<table>
<thead>
<tr>
<th>Social Media Application</th>
<th>Brand Awareness</th>
<th>Brand Engagement</th>
<th>Word of Mouth</th>
</tr>
</thead>
</table>
| Blogs                    | • number of unique visits  
• number of return visits  
• number of times bookmarked  
• search ranking | • number of members  
• number of RSS feed subscribers  
• number of comments  
• amount of user-generated content  
• average length of time on site  
• number of responses to polls, contests, surveys | • number of references to blog in other media (online/offline)  
• number of reblogs  
• number of times badge displayed on other sites  
• number of “likes” |
| Microblogging (e.g., Twitter) | • number of tweets about the brand  
• valence of tweets +/-  
• number of followers | • number of followers  
• number of @replies | • number of retweets |
| Co-creation (e.g., NIKEiD) | • number of visits | • number of creation attempts | • number of references to project in other media (online/offline) |
| Social Bookmarking (e.g., StumbleUpon) | • number of tags  
• number of followers | • number of followers | • incoming links  
• citations in other sites  
• tagging in social bookmarking  
• offline references to the forum or its members  
• in private communities: number of pieces of content (photos, discussions, videos); chatter pointing to the community outside of its gates  
• number of “likes” |
| Forums and Discussion Boards (e.g., Google Groups) | • number of page views  
• number of visits  
• valence of posted content +/- | • number of relevant topics/threads  
• number of individual replies  
• number of sign-ups | |
| Product Reviews (e.g., Amazon) | • number of reviews posted  
• valence of reviews  
• number and valence of other users’ responses to reviews (+/-)  
• number of wish list adds  
• number of times product included in users’ lists (i.e., Listmania! on Amazon.com) | • length of reviews  
• relevance of reviews  
• valence of other users’ ratings of reviews (i.e., how many found particular review helpful)  
• number of wish list adds  
• overall number of reviewer rating scores entered  
• average reviewer rating score | • number of reviews posted  
• valence of reviews  
• number and valence of other users’ responses to reviews (+/-)  
• number of references to reviews in other sites  
• number of visits to review site page  
• number of times product included in users’ lists (i.e., Listmania! on Amazon.com) |
| Social Networks (e.g., Bebo, Facebook, LinkedIn) | • number of members/fans  
• number of installs of applications  
• number of impressions  
• number of bookmarks  
• number of reviews/ratings and valence +/- | • number of comments  
• number of active users  
• number of “likes” on friends’ feeds  
• number of use-generated items (photos, threads, replies)  
• usage metrics of applications/widgets  
• impressions-to-interactions ratio  
• rate of activity (how often members personalize profiles, bios, links, etc.) | • frequency of appearances in timeline of friends  
• number of posts on wall  
• number of reposts/shares  
• number of responses to friend referral invites |
| Video and Photosharing (e.g., Flickr, YouTube) | • number of views of video/photo  
• valence of video/photo ratings +/- | • number of replies  
• number of page views  
• number of comments  
• number of subscribers | • number of embeddings  
• number of incoming links  
• number of references in mock-ups or derived work  
• number of times republished in other social media and offline  
• number of “likes” |
purchase by a user engaged with the company’s brand through a specific social media application, or the reach of a specific word-of-mouth element and subsequent conversion to future sales). For example, a popular personal care brand ran a large-scale integrated ad campaign on MySpace in the second quarter of 2008 and used matched consumer panels to link online social media behavior to survey measures of purchase intent as well as actual in-store sales. The results showed an ROI of 28% for the ad campaign.4

As this example shows, companies are starting to see some success measuring the ROI of their social media experiments, including some that offer the consumer a relatively complex social media experience. For example, in 2007, Kellogg created an integrated digital media experience for the “Special K Challenge” featuring a support website that offered consumers the opportunity to customize a diet using Special K cereal, participate in online forums with pointers from experts, join a Yahoo! e-mail support group and click through to Amazon.com to purchase the cereal. Kellogg, which was able to translate those website interactions and click-throughs to market response over 18 months, found that the online ROI for Special K cereal was twice as large as that from television.5 Vocalpoint, Procter & Gamble’s social networking site, has over 350,000 members who talk about P&G products; by linking these customer investments in brand conversation to sales, the site is credited with market response increases of up to 30%.6

To be sure, there is some complexity involved in calculating the ROI of a sophisticated social media campaign, not necessarily limited to determining the size of the test and control samples and the ability to match online customer profiles with offline purchases. However, even small-scale social media efforts can benefit from plugging in segment-level estimates and proxy measures to quantify how the customer investments from brand awareness, brand engagement and word of mouth affect the purchase decision funnel and, ultimately, the bottom line. We expect that over time the number and quality of the necessary inputs will increase, but marketers can find even rough proxy estimates useful in the meantime to generate the calculations necessary to link marketing investments to customer investments and market response.

Below we discuss three social media objectives and provide several examples of each.

**Brand Awareness** Traditionally, brand awareness is measured through tracking studies and surveys. Online, however, marketers have a number of ways to track brand awareness.

In the social media environment, every time a person uses an application designed by or about the company, the company gains increased exposure to its brand, often in highly relevant contexts. For example, several days before Election Day 2008, Starbucks ran a spot on the “Saturday Night Live” show as well as on YouTube, promoting a free coffee giveaway. Twitter mentions of Starbucks skyrocketed, averaging a mention every eight seconds, which translated into a sizeable increase in brand exposure.7 Such usages enhance and strengthen associations of the brand in customers’ minds through increased exposures. Thus, brand awareness is a key social media objective.

Another example is Naked Pizza, a New Orleans, Louisiana-based business catering to health-conscious pizza lovers, which tweeted about its pizzas in 2009 and successfully drew around 4,000 followers in just a few months. The company also kept track of sales that were spurred by a billboard outside its shop encouraging customers to follow it on Twitter. The microblogging campaign’s success culminated in the company breaking its one-day sales record, with more than 68% of its sales coming from customers who were Twitter followers. Also on that day, 85% of the company’s new customers claimed they had been motivated to buy from Naked Pizza because of Twitter.8

Finally, in what have rapidly become classics in the social media sphere, K-Tec’s blender brand Blendtec posted a series of humorous demonstration videos in which the company’s founder, Tom Dickson, posed the question “Will it Blend?” and then proceeded to blend iPhones, glow sticks, golf balls and many other products previously thought unblendable using his line of hardy blenders. The “Will It Blend?” campaign quickly went viral and as a result saw its sales grow fivefold. The BlendTec videos have now been viewed more than 100 million times on YouTube.
Brand Engagement  Brand engagement can be enhanced through social media in various ways, and the results can be strikingly positive. In an effort to engage its customers, Southwest Airlines revamped its “Nuts About Southwest” blog with podcasts, videos and other social media tools. Visits to the new and improved blog rose by 25%, page views increased 40% and visitors stayed 26% longer on the company’s website. The blog engaged customers on touchy subjects like assigned seating and used the results from 700 posts as a virtual focus group.9

Target leveraged the social networking aspect of Facebook by encouraging its customers to join and participate in an online environment devoid of any apparent self-serving sales pitches. Target tracked the success of its social media campaign by monitoring membership sign-ups. On their own, thousands of members generated significant buzz with regular posts, which in turn motivated numerous others to join and participate on the networking site. A Facebook application called “Circle of Moms” — which let mothers post messages, arrange carpools, set up back-to-school checklists and click through to promotions on the Target site — generated more than 20,000 visitors in six weeks.

For its 125th anniversary, Gretsch Guitars held a contest on its MySpace page to find the next best unsigned independent band. Nearly 900 bands entered the contest, and over 55,000 site visitors voted for their favorite bands. By soliciting participation from both musicians and their fans, Gretsch engaged its target customer and raised awareness of the brand more broadly.

These highly engaging social media campaigns involving user-generated content likely generate commitment on the part of the consumer, reinforcing loyalty to the brand and making the customer more likely to commit additional effort to support the brand in the future. The bottom-line rewards for this kind of engagement may be observed through delayed sales. Traditionally, marketers measure engagement through customer surveys. Online, marketers can use one-time versus repeated interactions or active participation compared to passive consumption of social media as proxy measures.

Word of Mouth  Once consumers are aware and engaged, they are in a position to communicate their opinions to other consumers. Satisfied and loyal consumers communicate their positive attitudes toward the brand itself or toward the social application created by the company (be it a Facebook application or group, a Twitter presence, a blog or a YouTube video) to new, prospective customers both online and offline. Dissatisfied and disgruntled customers may also share their negative attitudes toward the brand or poor social applications, as when technology journalist Jeff Jarvis blogged in 2005 about the shoddy customer service he received from Dell — his own “Dell Hell” that spread like wildfire on the Internet and mainstream media — and Dell saw its customer satisfaction score drop five points in one year.10 On the positive side, Japanese gaming company Square Enix started an online community to stir up interest in its North American release of Sony’s PlayStation 2 video game “Dragon Quest VIII: Journey of the Cursed King.” The North American online community was a success, drawing more than 14,000 members to join its forum, with 30% recruited via word of mouth from existing members; 40% of the online community pre-ordered the game. By the end of 2009, the video game had sold 510,000 units in North America.

In 2009, Burger King asked members of its “Whopper Sacrifice” Facebook application to un-
friend 10 of their Facebook friends in exchange for a free sandwich. Though later pulled, the reverse word-of-mouth campaign resulted in members unfriending a total of 234,000 Facebook friends. These abandoned friends monitored by the application received alerts informing them that they had been sacrificed for a Whopper. The offbeat campaign resulted in significant word of mouth for Burger King.

Traditionally, companies can estimate word of mouth through surveys that measure the likelihood of recommendation or can use customer satisfaction, loyalty and purchase likelihood as proxies for word of mouth, but online, word of mouth can be measured directly. More sophisticated methodologies are often required to measure word of mouth because a significant amount can occur either offline or online via private communication, where direct measurement is impossible. User-generated content can also embed consumers’ favorite brands (such as in a video on YouTube or a photo posted on Flickr) and contribute to word of mouth — and companies can organize such experiences on behalf of their consumers. For example, Atrapalo.com, one of Spain’s leading online travel agencies, included on its site a way for consumers to share travel videos and customer photos.

Why You Want to Do It This Way
The advantage of starting with consumer motivations, as opposed to trying to figure out what social media application to use, is that it makes clear how seemingly disparate applications are actually quite similar if they share the same underlying motivations for use. This makes the job of creating integrated marketing campaigns not only less overwhelming for the manager but also much more closely tied to online consumer behavior.

In other words, the question is not whether to blog or tweet, but what objectives need to be achieved and which set of tools with their corresponding metrics can best achieve them.

Paths to Effective Social Media Strategy
Once managers have a set of objectives in place for their social media efforts and understand that consumers are motivated to make investments in companies’ social media efforts through their interactions with the brand, the next step is to consider the strategic options for social media measurement.

Our simple 2 × 2 framework, which assumes the manager has a social media effort ongoing, neatly summarizes the choices managers face as they strive to develop social media strategy and suggests better (and worse) paths toward social media success. (See “Strategic Options for Social Media Measurement.”)

Let’s start with the “dead end.” In this scenario, the marketer has only a limited ability to measure his social media efforts (fuzzy) and believes that his efforts are not working (failing). Managers find themselves in this quadrant as a result of the “throw it on the wall and see what sticks” strategy and perform arbitrary changes with no way to measure their impact. Because measurement is fuzzy and the effort’s effectiveness appears to be failing, the manager has little insight or idea on what to do. The outcome is fairly predictable: The manager will give up on social media efforts or continue efforts that involve random adjustments without data support. This quadrant is a dead end. You don’t want to get stuck here!

Next is “measure and adjust.” In this scenario, the marketer has a reasonable ability to quantify his social media efforts (fuzzy) and believes that his efforts are not working (failing). Managers find themselves in this quadrant as a result of the “throw it on the wall and see what sticks” strategy and perform arbitrary changes with no way to measure their impact. Because measurement is fuzzy and the effort’s effectiveness appears to be failing, the manager has little insight or idea on what to do. The outcome is fairly predictable: The manager will give up on social media efforts or continue efforts that involve random adjustments without data support. This quadrant is a dead end. You don’t want to get stuck here!
chances about what is going wrong. This means the manager can evaluate and adjust the social media strategy accordingly. If the manager can do this well, he can move toward the “iterate for success” quadrant.

In that space, the marketer has both a reasonable ability to measure his social media efforts (quantifiable) and the belief that his efforts are working (succeeding). Since the components are being measured, the manager can purposefully iterate to improve even more. This is hard to do but obviously worth the effort.

The other path is “naïve optimist.” Here, the marketer has only a limited ability to measure his social media efforts (fuzzy), yet believes that his efforts are working (succeeding). We believe most marketers actually start here. They believe social media are worth the effort, but are not quite sure how best to measure their efforts. This quadrant is tricky because although it is a reasonable place to start, you want to move out of it as fast as possible so you don’t get stuck here.

Managers have two good options for moving from “naïve optimism” to “iterate for success” and one poor choice. Let us examine the poor choice first.

If the manager does not change anything, he will likely migrate to the “dead end.” This is because the lack of measurement will eventually lead to deterioration in the effort’s effectiveness over time, particularly as competitors are able to do it better.

There are two better options. First, the manager simply starts to measure social media efforts, discovers things are not working as well as they could be (“measure and adjust”) and then directs his efforts toward “iterate for success.” In the shorter path, the manager starts measuring and discovers the efforts are succeeding, moving directly to “iterate for success” from “naïve optimism.” In either case, the goal is to move away from fuzzy measurement and toward quantifiable metrics where the manager can get a real handle on what is working and what is not and then follow the best path that will get him where he needs to go.

**Done Right, Social Media Strategies Put the Brand to Work for Customers**

Reducing social media strategy to a mere measurement problem would be a mistake. Although measuring the ROI of social media efforts is important and necessary, it is far more important that managers make sure their social media efforts are effective, even if the state of ROI measurement may be less than satisfactory. In order to maximize the effectiveness of their social media efforts, managers must recognize two important facts of social media life when implementing social media campaigns.

First, while it is certainly true that consumers have much greater control over their online experiences, managers also have — and must exercise — a fair amount of control over the rules and framework for brand participation in social media. For example, a manager can control who posts to a blog devoted to the company’s brand. More generally, managers certainly have at least some control over the rules and the participatory framework of how consumers will engage with their brands in social media space.

Second, managers must appreciate that the social media environment is highly dynamic and rapidly evolving. While this may seem obvious, it is mostly overlooked when campaigns are conceived and launched. Many managers still approach social media as if the practices — and consumer behaviors — are largely fixed. Social media-savvy managers know this is not the case, but traditional beliefs about how to reach consumers and potential consumers die hard.

Our premise is that social media efforts that are developed in the context of the 4c’s — connections, creation, consumption and control — that underlie consumer motivations to participate will lead to higher ROI because the company’s marketing investments can better leverage the active “investments” its customers will make as they engage with the company’s brands. These investments can take the form of blog comments, registration and active participation to become a part of a brand-related community, private endorsements of a brand or product (a tweet or retweet, Facebook comment, review, blog post or offline recommendations to friends) and the like. While the content of consumers’ interactions is largely out of managers’ control, setting up the framework to facilitate that interaction is squarely in their control.

How managers design, launch and actively manage their social media campaigns plays a large
part in determining whether and how consumers will participate and interact. Savvy managers understand that there is a feedback loop. They don’t sit back once the social media campaign begins. Instead, they listen carefully because they know that consumers not only “consume” the campaign, but can comment on it (“create”), share it with their friends and anyone else (“connect”) and provide their uncensored thoughts about it (“control”) for any and all to view. And this listening must then lead to action. For example, if a consumer posts a question to the manager’s blog, someone with a face in the company must reply. If a video is uploaded, someone must monitor the Twitter stream for comments and be prepared to react if problems appear.

Traditional marketing metrics with narrowly defined ROI tend to lead to social media campaigns that maximize short-term benefits for the brand (or the manager!), without worrying too much about customer motivations and the long term. The result tends to be campaigns that expect the customer to work for the brand. In contrast, effective social media strategies put the brand to work for the customers by satisfying their needs to create, consume, connect and control in the social Web.

In a well-designed social media campaign, consumers are likely to spread viral videos, create additional brand-related content, tweet about the brand and post about their experiences on Facebook. The social metrics that reflect these kinds of social media behaviors are important not only because they let marketers measure the bottom-line impact of their social media efforts, but also because they focus marketers’ attention on social media strategies that take into account the objectives of both the brand and the online customer.

There is reason to be highly optimistic about improving the effectiveness of social media. The social Web is a highly measurable environment, and it is a relatively simple matter for a manager to measure the number of product reviews, blog posts and comments, retweets and appearances in the social network timelines of the company’s brands. At the same time, managers are often able to measure click-throughs to transactional websites, as well as capture the number of leads generated or conversion rates for online sales. While there will still be those situations in which behavior cannot be completely and accurately traced (e.g., offline purchases or offline word of mouth), we think that carefully planned social media campaigns afford phenomenal opportunities for relatively easy and cost-efficient measurement of customers’ online investments in a company’s brands.

Donna L. Hoffman is the Chancellor’s Chair and Professor of Marketing at the A. Gary Anderson Graduate School of Management, University of California, Riverside. Marek Fodor is the cofounder of Atrapalo, one of Spain’s leading travel agencies, and was formerly its chief technology officer. Comment on this article at http://sloanreview.mit.edu/x/52105, or contact the authors at smrfeedback@mit.edu.

ACKNOWLEDGMENTS

This research was supported by a grant from the UCR Sloan Center for Internet Retailing. The authors thank Mark Manalang for his research assistance.

REFERENCES


Reprint 52105.
Copyright © Massachusetts Institute of Technology, 2010. All rights reserved.
PDFs ■ Permission to Copy ■ Back Issues ■ Reprints

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

MIT Sloan Management Review articles, permissions, and back issues can be purchased on our Web site: www.pubservice.com/msstore or you may order through our Business Service Center (9 a.m.-7 p.m. ET) at the phone numbers listed below. Paper reprints are available in quantities of 250 or more.

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 (www.pubservice.com/msstore), call or e-mail:

Toll-free: 800-876-5764 (US and Canada)
International: 818-487-2064
Fax: 818-487-4550
E-mail: MITSMR@pubservice.com

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 MITSMR@pubservice.com

Customer Service
MIT Sloan Management Review
PO Box 15955
North Hollywood, CA 91615