

HOW LARGE U.S. COMPANIES CAN USE TWITTER AND OTHER SOCIAL MEDIA TO GAIN BUSINESS VALUE^{1,2}

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Executive Summary

Social media platforms such as Twitter and Facebook enable the creation of virtual customer environments (VCEs) where online communities of interest form around specific firms, brands, or products. While these platforms can be used as another means to deliver familiar e-commerce applications, when firms fail to fully engage their customers, they also fail to fully exploit the capabilities of social media platforms. To gain business value, organizations need to incorporate community building as part of the implementation of social media.

This article starts by describing the Fortune 500's use of four of the most popular social media platforms—Twitter, Facebook, blogs, and client-hosted forums—to interact with customers. We then argue that to gain full business value from social media, firms need to develop implementation strategies based on three elements: mindful adoption, community building, and absorptive capacity. Next, we use case studies of three Fortune 100 corporations to illustrate how they are managing their respective networks of social media applications. Finally, we provide guidelines for implementing social media.

THE NEED FOR A NEW APPROACH TO IMPLEMENTING SOCIAL MEDIA

Web 2.0 social media applications such as Twitter and Facebook create new opportunities for firms to improve their internal operations and to collaborate in new ways with their customers, business partners, and suppliers. While the press provides much anecdotal evidence of social media adoption by a wide variety of firms ranging from the Fortune 500 to very small businesses, achieving and measuring business value from social media continues to pose challenges to many organizations. For example, in 2009, McKinsey published the results of a survey of nearly 1,700 executives worldwide about their companies' use of a wide range of Web 2.0 social media platforms. The study included use of video sharing (e.g., YouTube), blogs, microblogging (e.g., Twitter), and social networking (e.g., Facebook or hosted online communities) for internal purposes or to connect with customers, external partners, or suppliers. The results showed that 64% used Web 2.0 platforms internally, 56% to communicate with customers, and 40% to work with external partners or suppliers. Despite widespread deployment, about one-third of all respondents reported that their applications had yet to provide measurable benefits either when used internally or with customers or business partners.³

This article focuses on the challenges firms face as they implement social media applications to interact with customers, and on the value such applications provide.

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2 An earlier version of this article was presented at the ICIS 2009 SIM Academic Workshop on Enterprise and Industry Applications of Web 2.0, Phoenix, AZ, December 15, 2009. We acknowledge the helpful comments of the senior editors and the reviewers on prior versions of this paper.

3 Companies reporting benefits were more likely to be very large firms, those in business-to-business relationships, and hi-tech companies. See Bughin, J. and Miller, A. "How Companies are Benefiting from Web 2.0: McKinsey Global Survey Results," *McKinsey Quarterly*, September 2009, available at <http://www.mckinseyquarterly.com/home.aspx>.

Table 1: How Virtual Customer Environments Create Value⁷

Activity Supported	Source of Value
Branding (advertising, public relations, content delivery)	Drive traffic, viral marketing, customer loyalty and retention
Sales (includes “call for action”—e.g., link to purchase item)	Revenue
Customer service and support	Cost savings, revenue, customer satisfaction
Product development	Revenue

Note: Multiple activities can be supported on a single social media platform. For example, some firms use a single Twitter feed or Facebook page for multiple activities.

Value comes not from the platform itself but from how a particular social media platform is used, as any given platform can be used for a variety of purposes.⁴ More important, however, social media applications have the potential to provide additional value beyond familiar e-commerce activities such as distributing content or driving sales because they enable the formation of online customer communities, also known as virtual customer environments (VCEs). As Table 1 shows, VCEs can support branding, sales, customer service and support, and product development, and can also create value in each of these areas. While customer communities are not a new idea, they are the focus of growing corporate interest due to the current popularity of platforms such as Twitter and Facebook.⁵

Firms potentially gain value from VCEs when customers engage with the company on a regular basis, co-creating content and sharing power. If these relationships are successful, customers feel like company insiders, often serving as a champion for the company and its products. Such customers are more likely to be loyal to the company’s existing products, more willing to try its new offerings, and become resistant to negative information about the company.⁶

4 See Majchrzak, A., Cherbakov, L., and Ives, B. “Harnessing the Power of the Crowds with Corporate Social Networking Tools: How IBM Does It,” *MIS Quarterly Executive* (8:2), 2009, pp. 103-108.

5 For an overview of the ways social media platforms support online communities, see Kane, G. C., Fichman, R. G., Gallagher, J., and Glaser, J. “Community Relations 2.0,” *Harvard Business Review* (87:11), 2009, pp. 45-50.

6 There is a large body of marketing research that seeks to understand the formation of customer relationships. For an extended discussion of how such relationships develop, see Bhattacharya, C. B., and Sen, S. “Consumer-Company Identification: A Framework for Understanding Consumers’ Relationships with Companies,” *Journal of Marketing* (67:2), 2003, pp. 76-88. Further, there is preliminary evidence that firms can gain value from building VCEs. One study of top consumer brands found that consumers who were Facebook fans spent more, were more likely to continue using the brand, and were more likely to recommend a product to their friends than non-fans. See “The Value of a Facebook Fan: An Empirical Review,” Syncapse, June 2010, available at <http://syncapse.com/media/syncapse-value-of-a-facebook-fan.pdf>.

Simply creating a presence on a popular platform like Facebook or Twitter does not guarantee that customers will be attracted to a firm’s page and engage with the firm and other customers. Relationships serve as the foundation for VCEs, so organizations need a new approach to implementing social media if they are to gain value from these communities. Specifically, because use of social media by customers is voluntary, and communities result from interactions among members over time, organizations need to take explicit steps to build communities and to learn from the interactions. These actions may not be necessary for other types of application where use of a system is either a required part of an employee’s job or the success of an application does not depend on users developing social relationships with other users.

The purpose of this article is to identify the factors that lead to effective implementation of VCEs. Merely using social media to support e-commerce without engaging customers does not fully exploit the capabilities of these platforms. We thus define two essential characteristics of an effective implementation:

- The firm attracts a critical mass of participants who form a community and who engage with the firm or other community members on an ongoing basis
- The firm develops processes to benefit from the content created by its customers.

Our research findings are based on an analysis of the Fortune 500’s use of four of the most popular social media platforms—Twitter, Facebook, blogs, and client-hosted forums—to interact with their customers and how their use of these four platforms varies by industry. Second, we argue that to gain value from social media used for customer applications, firms need to develop implementation strategies based on three elements:

Table 2: Fortune 500 Adoption Density of Social Media Platforms by Industry

Industry (No. of Firms)	Number of Social Media Applications per Firm					
	0	1	2	3	4	Average
<i>Distribution (23)</i>	11	10	1	0	1	0.70
<i>Energy (78)</i>	43	25	9	1	0	0.59
<i>Financial Services (72)</i>	26	13	22	8	3	1.29
<i>General Services (38)</i>	17	7	6	8	0	1.13
<i>Healthcare (18)</i>	5	8	4	0	1	1.11
<i>IT (40)</i>	2	7	4	10	17	2.82
<i>Manufacturing (146)</i>	61	31	30	18	6	1.16
<i>Retailing (54)</i>	10	8	18	13	5	1.91
<i>Transportation (17)</i>	1	5	8	2	1	1.82
<i>Other/Misc. (14)</i>	5	2	6	1	0	1.21
Total (500)	181 (36%)	116 (23%)	108 (22%)	61 (12%)	34 (7%)	1.3

- “Mindful” adoption
- Community building
- Absorptive capacity.

We describe case studies to illustrate how three very large firms are managing their respective networks of social media applications. Finally, we use our findings to provide guidelines for practice.

THE FORTUNE 500’S USE OF FOUR SOCIAL MEDIA PLATFORMS

We analyzed the content of websites to survey the Fortune 500’s public use of four social media platforms—Twitter, Facebook, blogs, and client-hosted forums—to engage with their customers. We selected these four platforms because, unlike YouTube or other sites that are largely used for sharing content, these four are highly participative; their purpose is to promote engagement between the firm and its customers. Our methodology is described in more detail in Appendix 1.

Table 2 shows the “adoption density” based on the number of platforms adopted per firm by industry. On average, each of the Fortune 500 has adopted slightly more than one social media platform; 36% have not adopted any of the four platforms while 7% have adopted all four platforms. With three exceptions, the average number of platforms adopted by industry is remarkably similar, ranging from 1.13 in General Services to 1.82 in Transportation. Two

of the exceptions are Distribution and Energy firms, which adopted on average less than one application. This may be because social media are not appropriate applications for these industries, which largely serve business customers or because they have implemented applications that did not show up in our content analysis of public websites; social media applications for B2B firms are likely to be located behind a firewall. The third exception is IT, where firms on average have nearly three social media applications, more than any other industry.

Table 3 shows the adoption frequency for each platform by industry. Overall, Twitter is the most frequently used (53%), followed by Facebook (46%), blogs (20%), and client-hosted forums (11%). However, there are significant industry differences for all four platforms. Twitter is the most frequently used platform in all industries except Retailing, where Facebook predominates. In two industries (Financial Services and Other/Misc.), Twitter and Facebook are tied. IT firms were early adopters of blogs, and this industry is also a leader in the use of hosted forums for customer support, which may help to explain why the IT industry has the highest adoption density.

7 For an extended discussion of how VCEs create value and for additional examples, see Li, C. and Bernoff, J. *Groundswell: Winning in a World Transformed by Social Technologies*, Harvard Business Press, 2008.

Table 3: Social Media Platforms by Industry (Number of Firms)

Industry (No. of Firms)	Twitter		Facebook		Blogs		Client-Hosted Forums	
	Yes	No	Yes	No	Yes	No	Yes	No
<i>Distribution (23)</i>	10	13	4	19	1	22	1	22
<i>Energy (78)</i>	28	50	15	63	3	75	0	78
<i>Financial Services (72)</i>	37	35	37	35	15	57	4	68
<i>General Services (38)</i>	18	20	16	22	9	29	0	38
<i>Healthcare (18)</i>	11	7	7	11	1	17	1	17
<i>IT (40)</i>	34	6	32	8	22	18	25	15
<i>Manufacturing (146)</i>	67	79	60	86	29	117	13	133
<i>Retailing (54)</i>	38	16	40	14	14	40	11	43
<i>Transportation (17)</i>	15	2	12	5	3	14	1	16
<i>Other/Misc. (14)</i>	8	6	8	6	1	13	0	14
Total	266 53%	234 47%	231 46%	269 54%	98 20%	402 80%	56 11%	444 89%

THREE ELEMENTS OF EFFECTIVE SOCIAL MEDIA IMPLEMENTATION

Merely creating a presence on a social media platform (e.g., launching a corporate Facebook page) does not ensure the implementation will create value. We argue that an effective implementation is based on three elements:

- First, organizations need to make a “mindful decision” regarding initial adoption
- Subsequently, because social media are essentially communication systems, organizations need to build communities
- Finally, they need to develop absorptive capacity so they can learn from the content their customers generate.

Mindful Adoption Decisions

When an IT innovation such as social media gains a high public profile, organizations can feel that they must urgently jump on the bandwagon, particularly given the ease and relatively low initial costs of rolling out some of these cloud-based applications. Prior research on IT innovation “fashions” found that organizations can gain legitimacy with external constituents merely by adopting the latest technologies. But such an approach does not necessarily ensure a quality implementation that

yields the desired benefits unless a firm makes mindful decisions about the way the technology is adopted.⁸

In a mindful adoption, a firm pays careful attention to its local context, weighing the expected business value with the risks before deciding to proceed. Over time, the innovation is absorbed into the work life of the firm. While a mindful firm may be early in terms of evaluating innovations, it may not necessarily decide to become an early adopter or join the social bandwagon if an innovation is perceived to have dubious merit. Put another way, mindfulness means adopting the “right” innovation at the “right” time and in the “right” way across all phases of implementation—initial adoption including selection and configuration, deployment and exploitation.

We believe that mindfulness applied to social media adoption encompasses five elements:

1. Making a good decision about which platform(s) to adopt and how they should be used
2. Assigning responsibility for governance
3. Identifying metrics to measure value

⁸ See Wang, P. “Chasing the Hottest IT: Effects of Information Technology Fashion on Organizations,” *MIS Quarterly* (34:1), 2010, pp. 63-85; Fichman, R. G. “Going Beyond the Dominant Paradigm for Information Technology Innovation Research: Emerging Concepts and Methods,” *Journal of the Association for Information Systems* (5:8), 2004, pp. 314-355; and Swanson, E. B. and Ramiller, N. “Innovating Mindfully with Information Technology,” *MIS Quarterly* (28:4), 2004, pp. 553-583.

4. Making sure all applications are readily accessible
5. Managing risks.

1. Making Decisions About Platforms and Their Deployment. In making a mindful initial decision to adopt social media to engage with customers, an organization needs to align the platform with its organizational culture, its brand(s), its business objectives, and its customers. For example, does it make more sense to let various business units experiment with social media, or should there be a more formal approach to developing applications? Are customers likely to be using Facebook, or would another platform, such as a blog, be more appropriate? Is the organization interested in developing a customer support application? If customers will likely support each other, a forum is a good choice. Twitter may be the right platform if the organization wants employees to rapidly respond to customers but would probably be a bad option if you can't respond quickly. And in some cases, the mindful decision might be to not adopt social media at all.

2. Assigning Governance Responsibility. Once the decision to adopt social media has been made and the objectives of any application identified, organizations need to assign responsibility for governance. There are many similarities between these new platforms and the early days of the web. When companies experimented with websites, they also faced challenges in managing their online assets, in aligning their web strategy with the business, and in measuring the value of their e-commerce applications.

As a consequence, the governance of social media should share many similarities with governance of existing hosted e-commerce applications. While the IT organization was likely responsible for the initial programming, implementation, and security of e-commerce applications, individuals with specialized skills from other areas of the business would also have been involved. But once an e-commerce application has gone live, specialists from corporate communications, marketing, or customer service are responsible for creating content based on the firm's strategy and values (e.g., press releases or promotions) and for processing incoming transactions (e.g., comments submitted via a web form). As a result, how a firm manages its e-commerce applications can provide a starting point for structuring the governance of its social media applications.

3. Identifying Value Metrics. Firms need to develop two types of metrics to assess whether the objectives

for their social media applications are being realized and to measure the value from these investments. The specific measures should reflect the objectives of the respective application. As we define effective implementation in terms of community building, one set of measures should assess community outcomes. First, measure the size of the community and whether it is growing. You also need to assess the proportion of members who are active and how they are engaging with the content you post. How much time are they spending on your social media sites? What is the quantity and tone of the discussion about your company and your products? Is your content being redistributed and showing up in blogs or elsewhere? Are people re-tweeting your tweets? Some of these outcomes can be measured using metrics already in use for the organization's website, while others may require customized tools.⁹

An organization will likely be using social media to support activities such as those listed in Table 1. The value provided by these initiatives can be measured by adapting four types of performance indicators developed for traditional information systems for use with social media applications:

- Financial (e.g., cost reduction, cost avoidance, or revenue)
- Organizational effectiveness (e.g., improved service time, product or service quality, or customer satisfaction or retention)
- Personnel (e.g., employee satisfaction)
- System (e.g., measures related to IT performance or information security).¹⁰

For example, measures for social media could include increased sales resulting from social media, cost savings from shifting customer service from the phone to social media, or customer satisfaction based on interacting with the firm's social media applications.¹¹

4. Making Social Media Applications Readily Accessible. While attracting a large number of participants is not necessarily the most important

9 For a more detailed discussion of social media metrics, see Sterne, J. *Social Media Metrics: How to Measure and Optimize Your Marketing Investment*, John Wiley & Sons, 2010.

10 See Zmud, R. W. *Information Systems in Organizations*, Scott, Foresman and Company, 1983.

11 Forrester Research recommends measuring the value of social media initiatives by using a Balanced Scorecard that includes: financial measures (e.g., increased revenue or profits or decreased costs), brand (consumer attitudes related to the firm's brands), and risk management (firm is better positioned to note and respond to reputational issues). See Ray, A. *The ROI of Social Media Marketing: A Balanced Marketing Scorecard Thoroughly Validates Social Media Value*, Forrester Research, July 16, 2010.

success measure for a social media initiative, creating a viable customer community by definition requires a critical mass of active participants.¹² An organization should therefore take explicit steps to attract users by ensuring that all social media applications are prominently promoted and easy to access from its main webpage and are cross-linked from its other web applications. Our survey found that while 96% of client-hosted forums were accessible from the firm's homepage, less than 80% of Twitter or Facebook applications or blogs were accessible in this way.¹³

Organizations should ensure that they have a central inventory of all their social media applications and that the applications are readily accessible to the public via links or an accessible "community" webpage. If individual business units or employees are allowed to create their own social media applications, there should be a policy that the developer has to notify the keeper of the inventory to make sure new applications are included in the links from existing applications on the firm's website. The policy should also require new social media applications (e.g., Facebook page) to include links to the firm's website and other existing social media applications as appropriate.

5. Managing Risks. Social media platforms pose new and serious risk management issues for firms because a large number of employees may be creating content or interacting with customers on behalf of the firm. Risks include security breaches, breaches of client confidentiality, leaks of intellectual property, and violations of the firm's policies or codes of conduct.¹⁴ Firms in regulated industries (e.g., pharmaceuticals, health care, or financial services) may face additional legal requirements.¹⁵ Organizations should address these risks proactively by developing policies that address acceptable and unacceptable behaviors for both customers and employees. They should provide employees with training in permissible forms of

communication before rolling out any new social media applications and should monitor subsequent use for compliance.

Community Building

Many of the most effective social media initiatives targeted at customers are communities with a critical mass of people who identify with the community and stay involved. The greater involvement an individual has with the community, the more likely he or she is to contribute. Further, over time, people develop a sense of responsibility to the community based on their exchanges with other members.¹⁶

Simply creating a presence on a popular platform such as Twitter or Facebook won't guarantee that an organization will attract customers to its page. The results of our survey of the Fortune 500's use of social media also shows that there is considerable variation in their ability to successfully establish ongoing relationships with a critical mass of customers and to build viable communities. For Twitter, the number of followers ranged from just one to 1.6 million, with an average of 36,000. For Facebook, the number of fans ranged from zero to 5 million, with an average of 86,000. However, 112 (48%) of the 231 Fortune 500 firms with a Facebook page had fewer than 1,000 fans, and 16% had fewer than 100 fans. Of the 266 Fortune 500 firms with Twitter feeds, 116 (44%) had posted less than 100 tweets, and 155 (58%) firms had fewer than 1,000 followers.

There are likely to be multiple explanations for these findings, including the time elapsed since the initial adoption (we were not able to determine how long the sites had been operational). However, the majority of both Facebook pages and Twitter feeds, even those with small numbers of fans or followers, contained content created during the current month, suggesting most sites were active. Further, a spot check of some of the Facebook pages conducted approximately six months after we collected our data revealed most of these pages had subsequently attracted more than the 1,000 fans needed for critical mass. Nonetheless, firms still need to be proactive about building a community as their portfolio of social media applications evolves.

Because use of social media by customers is voluntary, and the community arises because of interactions among members over time, organizations

12 Social media applications typically require more than 1,000 users to be effective since only a core of members will be active contributors. See Fenwick, N. *The CIO's Guide to Social Computing Leadership*, Forrester Research, March 31, 2010.

13 A recent study of 30 leading national marketers found that only 56% of the Facebook pages analyzed were prominently promoted on a firm's main website. See Parrish, M. *How to Create an Effective Brand Presence on Facebook*, Forrester Research, August 12, 2010.

14 For more detailed information on potential risks, see *Web 2.0: A Complex Balancing Act – The First Global Study on Web 2.0 Usage, Risks and Best Practices*, McAfee, Inc., 2010, available at <http://newsroom.mcafee.com/images/10039/Web2report.pdf>.

15 For specific examples of some of these regulations, see McNicholas, E. R. and Ross, S. B. "Regulated Social Media: Practical Advice for Addressing Evolving Technologies in Regulated Industries," *Privacy & Security Law Report*, 9PVL24, The Bureau of National Affairs, June 14, 2010.

16 For an extensive discussion of social factors that promote community, see Nambisan, S. and Baron, R. "Different Roles, Different Strokes: Organizing Virtual Customer Environments to Promote Two Types of Customer Communications," *Organization Science* (21:2), 2010, pp. 554-572.

Table 4: Organizational vs. Customer-Designed Transactions

	Designed by Organization	Designed by Customer
Examples	Orders, accounting, payroll	Complaints, comments, questions, suggestions
Transaction Format	Fixed field, often numeric	No fields, unstructured text
Procedures for Transaction Processing	Standard rules, including rules for handling exceptions	Standard rules may not exist, including rules for what constitutes an exception
Origin of Transaction	Electronic or paper form	Postal mail, phone, fax, e-mail, social media, etc.
Knowledge Creation and Sharing	Reports generated automatically by transaction processing system	Transactions processed manually; no automatic reporting

need to take explicit steps to build a community. As mentioned already, these actions may not be necessary for other applications where use of a system is either a required part of an employee's job or where success of the application does not depend on users developing social relationships with other users.

An Infrastructure to Support VCEs. Organizations need to create and maintain an infrastructure that enables and supports a community in their VCE.¹⁷ The purpose of this infrastructure is to attract and retain a critical mass of participants. The first and most important element is content. Without a continual supply of compelling content, there is no reason for people to visit an organization's social media site. An organization typically bears primary responsibility for initiating content on Twitter and Facebook and in blogs that will motivate its customers to respond. For example, providing opportunities for customers to engage with the firm's executives or other "celebrities" can promote engagement.

Recognizing contributions from community members, particularly in support or product development forums, is another important way of retaining members by enhancing their reputation. Further, such recognition can build trust within the community by providing other members with a way to assess the credibility of strangers.

As described previously, to promote an environment that is conducive to participation and to avoid legal risks, organizations also need to develop formal policies for acceptable user-generated content and behavior for both their customers and their employees.

¹⁷ For a more extensive discussion of building an infrastructure to support community, see Culnan, M. "If You Build It, Will They Come? Gaining Business Value from Social Networking." *Cutter Benchmark Review* (9:5), 2009, pp. 5-11.

Finally, it is essential to respect the norms and policies of public social media platforms where an organization has a presence.

Absorptive Capacity

The third element of effective social media implementation is for organizations to develop absorptive capacity for their social media. This means they need the ability to recognize and acquire new knowledge and to subsequently be able to exploit any knowledge provided by their customers. Having a thriving community with a critical mass of active participants is necessary but not always sufficient to gain value from a VCE; organizations must also have the capacity to process or respond to the messages their customers create.

In effect, social media platforms are a type of transaction processing system where customers create messages in the form of tweets, Facebook wall postings, comments in a blog, or posts to a hosted online forum. Each message is equivalent to a transaction. Prior to social media, organizations received messages from their customers in the form of postal mail, faxes, phone calls, or e-mail. The messages received via traditional media differ from social media applications because with the former, the content is private and seen only by the organization, while with the latter, the communications are posted in a public forum. There are also major differences between the format of user-generated messages, which consist of unstructured text, and the organization-designed structured transactions processed by many familiar information systems. Table 4 highlights some of these differences.

To develop absorptive capacity, organizations first need to assign formal responsibility for monitoring the content that users create in their social media applications. It is important to note that monitoring

knowledge content differs from monitoring for compliance with company policies discussed above as an element of a mindful adoption. Depending on the application, the individuals performing the monitoring could be in customer service, corporate communications, or marketing.

Second, organizations need to develop formal systems and rules to be used by employees to process incoming social media messages. These rules include criteria for deciding which transactions merit a response and how to respond to different types of transactions or messages. For example, should people be given individual responses, or referred to the firm's existing online customer feedback application? Some firms respond to direct messages they receive on Twitter in a conversational tone but refer complaints to an online customer service function. Which messages should be ignored or even deleted? The policy should also provide guidelines about how quickly to respond to various types of transactions and define which types of transactions are urgent and deserving of special attention.

Finally, organizations need to decide how reports about social media transactions will be created, shared, and used by the organization. What kinds of statistics are needed about emerging or ongoing issues? Can reporting for social media applications be incorporated with existing reporting systems? Firms may wish to track problems or trends even if they decide not to respond to every individual message.

Summary of the Three Elements of Effective Social Media Implementation

Table 5 summarizes our discussion of the three elements—mindful adoption, community building, and absorptive capacity—of successful implementation of social media. We developed the principles in this table from our review of both the academic literature and the growing body of recommendations for best practices.

THREE CASE STUDIES OF SOCIAL MEDIA IMPLEMENTATION

To illustrate different approaches to social media implementation, we developed case studies that describe how three of America's largest companies—Walmart (a B2C retailer), Hewlett-Packard (HP, a B2C and B2B IT firm), and Coca-Cola (a consumer goods manufacturer)—are using social media to interact with their customers. We chose these three because they are

all Fortune 100 firms, have differing business models, have strong reputations for leadership in marketing and/or their use of IT, and have implemented diverse portfolios of social media applications. The methodology we used to create the case studies is described in Appendix 2.

Walmart

Table 6 summarizes Walmart's social media applications and our observations of its abilities in the three elements needed for successful implementation. Walmart's social media portfolio consists of Twitter and Facebook applications plus two blogs, all used primarily to support branding and sales. In addition to sites devoted to general merchandise, Walmart has separate sites for two product categories, beauty (Walmart Beauty) and music (Walmart SoundCheck). The overall governance of Walmart's social media portfolio appears to be centralized, as its applications are linked from the homepages of the retail website (www.walmart.com) and the corporate website (www.walmartstores.com). Further, there is a separate Twitter gateway page linked from the corporate website. As a result, the firm's social media applications are readily accessible.

Figure 1 shows Walmart's social media network diagram (i.e., how its social media and websites are interlinked).

Walmart's Checkout blog appears to have been supplanted by Twitter as the blog has not been updated for several months. The other blog is devoted to social responsibility (Walmart Gives Back). The linkages diagram also includes Facebook pages and Twitter feeds for Sam's Club, which operates independently of the Walmart sites. However, the Walmart Twitter gateway page includes links to the Sam's Club Twitter feeds.

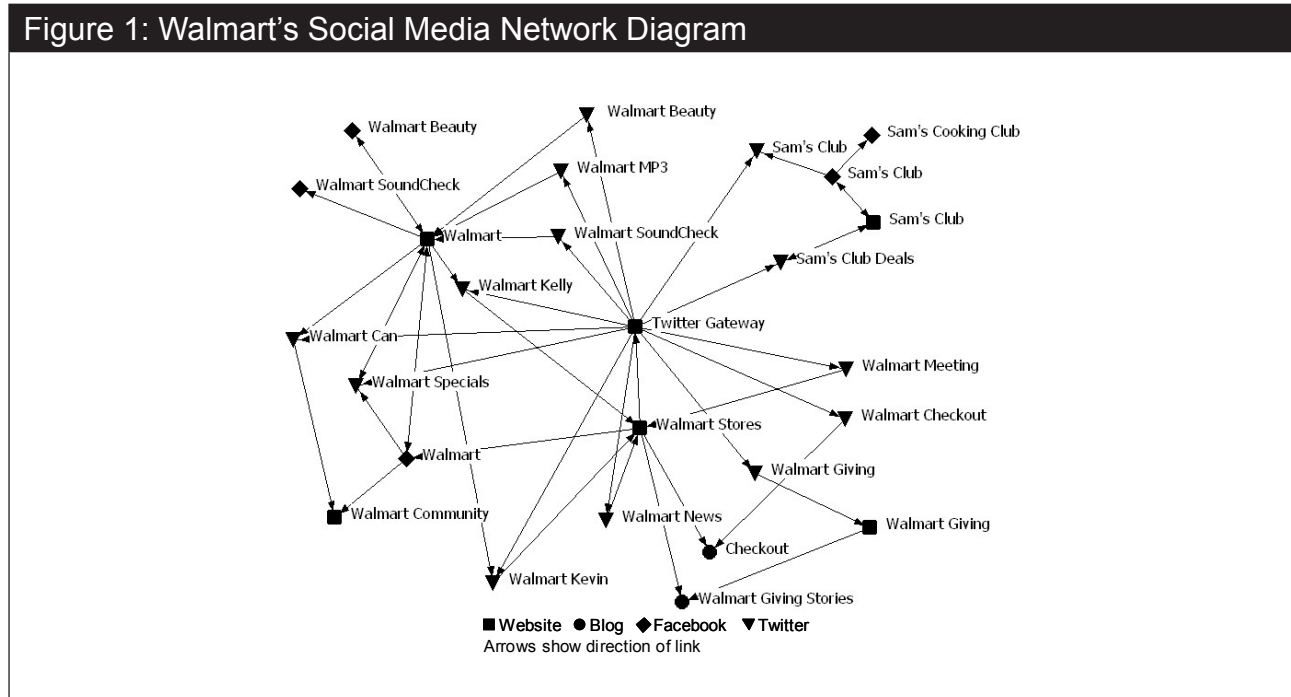
Walmart engages in community building. Its largest Facebook site has over 1 million fans, and the other two Facebook pages, SoundCheck and Beauty, both have over 1,000 fans. The content on the Facebook and Twitter sites is current, with both employees and customers contributing and interacting. Walmart has developed "External Discussion Guidelines" for Twitter. However, it has no public policy for Facebook, despite the fact that it has activated the discussion feature, which along with its Facebook wall, provides an opportunity to complain or to post other negative types of comments.

Walmart appears to have developed absorptive capacity. It responds to messages posted on both

Table 5: Elements of Effective Social Media Implementation

<p>Mindful Adoption</p> <ul style="list-style-type: none"> • Match your adoption of social media platforms to your organization’s culture, your customers, and your business objectives • Make applications easy to find: <ul style="list-style-type: none"> - Maintain an inventory of all social media applications - Provide links from the firm’s homepage or an accessible “community” or gateway page - Provide easy cross-navigation between your social media applications - Make sure the links between your social media sites or links back to other websites work • Develop quantitative and qualitative metrics for measuring the value of your social media applications: <ul style="list-style-type: none"> - Design metrics to measure community outcomes (e.g., size of community, frequency of participation, sharing of content with other social media sites) - Design metrics to measure traditional outcomes (e.g., revenues, cost savings, increased customer satisfaction) • Address risk management issues, including security and privacy issues: <ul style="list-style-type: none"> - Create a formal policy for employee use of social media - Post a privacy notice and “house rules” for participants - Train employees - Monitor social media applications for potential problems
<p>Community Building</p> <ul style="list-style-type: none"> • Continually populate the site with engaging content: <ul style="list-style-type: none"> - Assign formal responsibility for creating content - Have executives or other company “celebrities” post and interact with community members • Provide incentives for participation (e.g., recognition) • Don’t mention the company in every conversation • Balance freedom with control and accountability; be selective in deleting content • Be sensitive to the norms and policies of any public platforms you use
<p>Absorptive Capacity</p> <ul style="list-style-type: none"> • Assign responsibility to designated employees or departments for monitoring social media based on the objective(s) of the social media application • Build on your organization’s existing processes and expertise in public relations, customer service, product development, or elsewhere for processing customer communications received via other media • To structure messages, where feasible, integrate your social media applications with your existing web services (e.g., link to existing web customer support application) • Develop new procedures for message processing as needed for: <ul style="list-style-type: none"> - Identifying and responding to both routine and urgent messages - Exception-handling - Answering messages on a timely basis - Integrating social media with your existing related applications • To share knowledge across the firm, develop procedures and metrics for reporting

Table 6: Walmart's Social Media	
Platforms	<ul style="list-style-type: none"> • Twitter (14 sites plus 2 Sam's Club) • Facebook (3 pages plus 2 Sam's Club) • Blogs (2)
Primary application(s)	<ul style="list-style-type: none"> • Branding • Sales
Governance approach (based on links)	Centralized, with sites organized by product
Accessibility (based on links from corporate website)	<ul style="list-style-type: none"> • Two social media hubs (corporate and retail websites) • Both corporate and retail websites have links to a social media page or link directly to social media sites • Sam's Club website does not link to its social media sites; sites can be accessed directly by using search
Risk management (based on publicly available policies)	Twitter "External Discussion Guidelines"
Community Building	
Critical mass (more than 1,000 fans on Facebook)	Largest Facebook site has over 1 million fans; two other Walmart sites have more than 1,000 fans
Content creation	Most content is current. Both employees and customers post content.
Absorptive Capacity	
Evidence firm is monitoring sites	Yes, based on responses posted on Facebook and Twitter
Rules for message processing	<ul style="list-style-type: none"> • Facebook: respond individually to some specific questions or offer-related complaints; refer other problems to web form • Twitter: respond individually to direct messages; policy states store and customer service issues will not be addressed via Twitter



Facebook and Twitter, suggesting it is monitoring these sites. There also appear to be rules for processing messages. For example, most customer service problems are referred to a web form for reporting a range of problems, while other messages receive a direct response. But others, particularly in the Facebook discussion forum, receive no response. The Twitter guidelines state that store and customer service issues will not be addressed via Twitter.

Hewlett-Packard

HP's social media portfolio consists of Twitter and Facebook applications, blogs, and hosted forums, all of which are used to interact with its business and consumer customers. These applications are primarily used for service and support, as one would expect for a technology company, as well as to support branding and marketing. The sites are organized by type of customer and/or product (see Table 7).

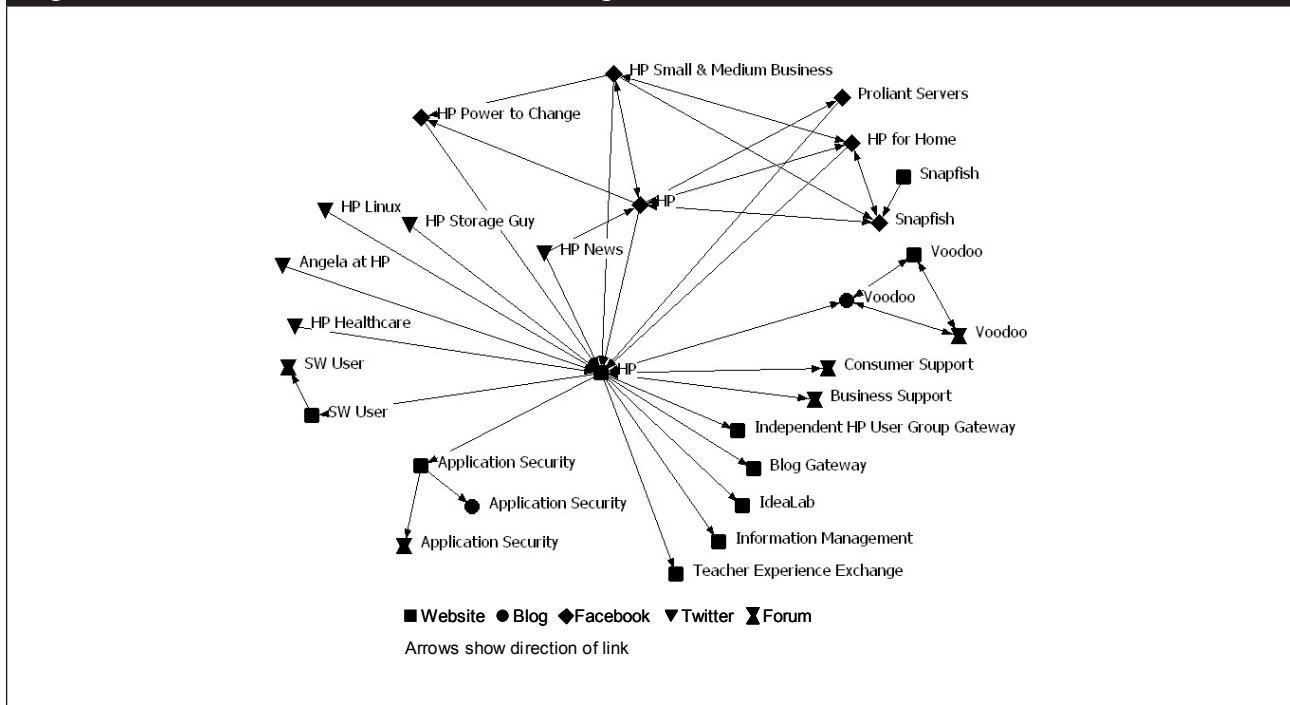
Figure 2 shows HP's social media network diagram.

The HP case provides some interesting insights into how the firm introduces a new social media platform. In the social media network diagram we created in early 2010, we observed limited use of Twitter. HP had created three sites that were linked to each other but not linked to anything else. When we updated our diagram a few months later, HP had created additional Twitter sites, linked each site back to hp.com, and removed the links connecting the original three Twitter sites. This suggests it had successfully tested these prototypes and subsequently completed a formal rollout.

HP's governance approach appears to be a mix of centralization and decentralization. Forums and blogs, both of which appear to be client-hosted, are linked from the firm's main corporate website (www.hp.com) via a "Connect with Others" community page and a blog gateway. However, the HP Facebook and Twitter sites, which are not client-hosted, are not linked from the website nor do they appear on HP's "Connect with Others" community page. Moreover, we were unable to find a list of all of HP's Facebook and Twitter sites,

Table 7: HP's Social Media	
Platforms	<ul style="list-style-type: none"> • Twitter (5 sites) • Facebook (6 pages) • Forums (more than 80) • Blogs (more than 50)
Primary application(s)	<ul style="list-style-type: none"> • Customer service and support • Branding
Governance approach (based on links)	Mix of centralized and decentralized, with sites organized by product and/or type of customer
Accessibility (based on links from corporate website)	<ul style="list-style-type: none"> • One social media hub • hp.com links to community pages for blogs and forums • No links from hp.com to Facebook or Twitter sites
Risk management (based on publicly available policies)	<ul style="list-style-type: none"> • Facebook guidelines posted on wall of primary Facebook site only • "Rules of Participation" for forums • Employee "Blogging Code of Conduct"
Community Building	
Critical mass (more than 1,000 fans on Facebook)	Largest Facebook site has over 100,000 fans. All Facebook sites have more than 1,000 fans. Extensive recognition system for forums.
Content creation	Most content is current. Both employees and customers post content.
Absorptive Capacity	
Evidence firm is monitoring sites	Yes. Forums moderated. Response to direct messages on Twitter.
Rules for message processing	<ul style="list-style-type: none"> • Steer support problems to forums • Twitter: respond individually to direct messages

Figure 2: HP's Social Media Network Diagram



suggesting that it has not connected newer non-client-hosted applications to its inventory of existing hosted applications on its website.

HP engages in community building. Its largest Facebook page (HP for Home) has more than 100,000 fans, and all of its Facebook sites have more than 1,000 fans. Both employees and customers create content, and most content is current. The company also uses recognition to build community in its forums. It has developed formal “Rules of Participation” for its forums and an “Employee Blogging Code of Conduct.” HP has posted guidelines on the wall of its HP for Home Facebook site, but the other Facebook sites do not have a posted policy.

The company appears to have developed absorptive capacity. Its forums are moderated and it responds to direct messages on Twitter. Further, support problems are directed to the forums.

Coca-Cola Company

Coca-Cola’s social media portfolio consists of eight Facebook pages, seven Twitter sites, and a blog run by Coca-Cola’s historian/archivist. The sites are divided between those related to a specific brand of the Coke soft drink and those for the Coca-Cola Company as a corporate entity (see Table 8).

In our research, we focused on social media applications for the Coke brands (Diet Coke, Coke

Classic, and Coke Zero brands as well as Coca-Cola Company sites that apply across brands (e.g., World of Coca-Cola and the Coca-Cola Store). These sites are used primarily to support branding and, to a lesser extent, sales. Coca-Cola also owns many other brands (such as Simply Orange), which have their own websites and social media applications.

Coca-Cola’s governance approach appears to be decentralized. The main consumer website (www.coca-cola.com) links to the fan-run Coca-Cola website. The main corporate website (www.thecocacolacompany.com) links to the Coke Twitter feeds, the fan-run Facebook page, and the Coca-Cola Company Heritage Blog. This blog links to Facebook and Twitter applications for the Coca-Cola archives. The consumer and corporate websites link to websites for other brands (e.g., Nestea, Sprite) or company-wide websites (World of Coca-Cola or Coca-Cola Store). While these two websites link to their own social media applications, the majority of brand websites do not link to any social media applications. The Facebook page for the Coca-Cola Freestyle beverage dispensing machine is not linked to anything. The only way to locate these applications is to do a Google search.

Figure 3 shows Coca-Cola’s social media network diagram.

Table 8: Coca-Cola's Social Media	
Platforms	<ul style="list-style-type: none"> • Twitter (7 sites) • Facebook (8 pages) • Blog (1)
Primary application(s)	<ul style="list-style-type: none"> • Branding
Governance approach (based on links)	<ul style="list-style-type: none"> • Decentralized • Sites organized by product or corporate function
Accessibility (based on links from corporate website)	<ul style="list-style-type: none"> • Corporate website is primary social media hub with links to blog, Twitter, and fan-run Facebook site • Coca-Cola consumer website links only to fan-run Facebook page • Blog links to its own Facebook page and Twitter site • World of Coca-Cola website links to its own Facebook page and Twitter site • Freestyle Facebook page is not linked from any websites • Majority of other brands do not link to their social media applications
Risk management (based on publicly available policies)	<ul style="list-style-type: none"> • Facebook fan-run page has "House Rules" and "Terms of Use" • Blog has its own "House Rules" • "Coca Cola Company Online Social Media Principles" for employees; company runs a Social Media Certification Employee Program for official company representatives
Community Building	
Critical mass (More than 1,000 fans on Facebook)	Yes. Largest Facebook site has more than 10 million fans. Other sites have more than 1,000 fans except for one inactive brand site.
Content creation	Most content is current. Both employees and customers post content. Employee participation varies greatly by site.
Absorptive Capacity	
Evidence firm is monitoring sites	Yes, based on responses posted on Twitter and some Facebook sites. Main Facebook page states content will be monitored. Social media policy is to "listen" to the online community.
Rules for message processing	<ul style="list-style-type: none"> • Twitter: respond individually to direct messages • Social media policy requires keeping records of online interactions

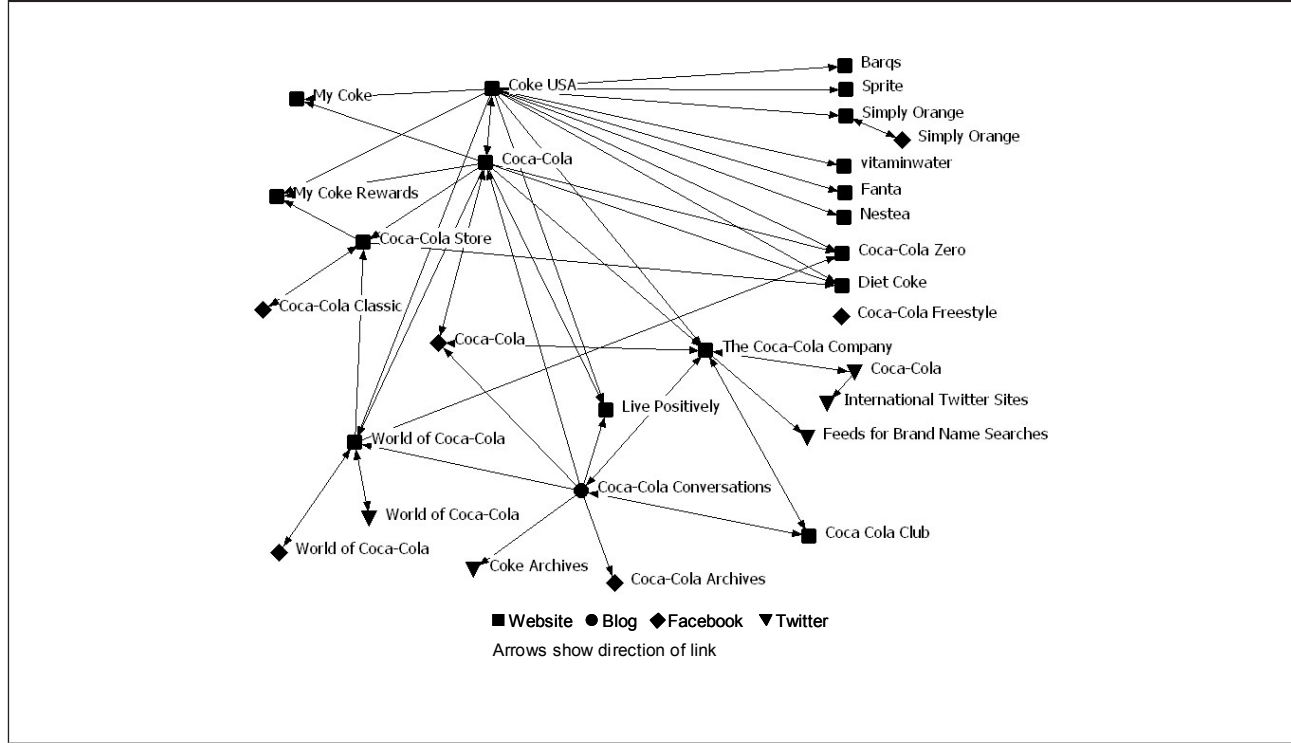
Coca-Cola engages in community building. The main "official" Facebook page currently has more than 10 million fans and attracts tens of thousands of new fans per day;¹⁸ these individuals contribute content on an ongoing basis. Although a Google search lists the site as "official," it appears to have evolved independent of any efforts on Coca-Cola's part. It was originally created by two independent fans and subsequently adopted by Coca-Cola. Coca-Cola employees do not appear to create content, respond to comments or answer questions posted by customers. The other Facebook pages we analyzed have over 1,000 fans each with the exception of the Coke Classic page,

which appears to be inactive. The content on the Facebook and Twitter sites is current. Both customers and employees post content on all sites with the exception of the fan-run Facebook page.

In 2009, Coca-Cola issued "Online Social Media Principles," which apply company-wide to all its brands. These principles define expectations for speaking "for" the company and for speaking "about" the company as well as expectations for online Coca-Cola spokespeople. Further, the fan-run Facebook page has "House Rules" and also links to a more legalistic "Terms of Use" for the fan page. The House Rules state that Coca-Cola employees monitor the site and remove obscenities and other inappropriate

18 See <http://pagedata.insidefacebook.com>.

Figure 3: Coca-Cola’s Social Media Network Diagram



material. There is also a disclaimer that comments posted on the page do not represent the opinions of the company. The blog also has its own House Rules, which state that all comments will be monitored before they go live.

Coca-Cola appears to have developed absorptive capacity. As described above, it states that it monitors the Facebook site and the blog. It also responds to messages posted on its other Facebook sites and to Twitter messages, which suggests additional monitoring. Further, the Social Media Principles indicate that employees should “listen” to the online community. These principles also provide some limited insights into the rules used for message processing. For example, online spokespeople are required to keep records of their social media interactions and employees are requested to forward important comments to a specific internal e-mail address.

GUIDELINES FOR IMPLEMENTING SOCIAL MEDIA

Interest in implementing social media platforms to create VCEs continues to grow. A 2009 survey on IT innovation found that 20% of leading firms planned to innovate with IT to engage customers in new ways, with 23% saying they planned to use IT to improve

customer service. Nearly half said they were adopting wikis,¹⁹ blogs, or social networking tools for external collaboration.

We offer the following four preliminary guidelines for effective implementation of social media. Our guidelines are based on the inferences we drew from our observations and on the literature cited in the footnotes. We focus on issues that we believe are likely to have the greatest relevance to IT executives and that are concerned with coordinating the IT unit’s activities with other business units. While our survey data and cases provide a snapshot of the current state of social media implementation, we believe our findings suggest there are multiple paths to effective implementation of social media as long as the initial adoption decision is mindful.

1. Coordination is Needed to Promote Use

In the early days of the web, companies were often plagued with broken links as their websites evolved. We observed a similar problem in both our survey and our cases: a failure of companies to provide access to their social media applications from their corporate websites. Making social media applications

¹⁹ A wiki is a website that allows the easy creation and editing of any number of interlinked web pages via a web browser using a simplified markup language or a WYSIWYG text editor.

readily accessible can both help build communities and promote the availability of these sites to support e-commerce applications such as customer service or sales.

The absence of links from the main company website to the social media applications running on public platforms (e.g., Twitter and Facebook) suggests a lack of coordination between IT and the business units that appear to have developed and now manage these applications. For example, HP has clear links from its corporate website to its social media applications hosted in-house; however, there are no such links for its social media applications hosted on public platforms. As we suggested previously, organizations need to develop coordination procedures to ensure that there is a central inventory of social media applications and that there is a process for ensuring that links are created for new applications at the appropriate time.

2. Address Risk Management Issues Up Front

Social media applications pose potential risks, which, if not addressed systematically, can result in serious legal or reputational problems. As we discussed earlier, an important component of a mindful adoption decision is the development of comprehensive policies for both employees and customers setting out what constitutes acceptable content and appropriate ways of communicating. A firm's acceptable-use policies can serve as a starting point for employee policies, as can some of the publicly available policies we identified during our case study research. Customers should also be reminded of the firm's policies that govern the privacy of the information they post.

Additionally, even if an organization decides that the benefits of implementing social media are lower than the costs, it is certain that its customers, employees, and other external stakeholders are using social media. A failure to develop policies governing employee use and to monitor what is said about the firm in external communities is therefore a recipe for trouble.

3. Develop Procedures to Process Unstructured Transactions

As mentioned above, social media are really a new type of communication system, with customers creating and transmitting unstructured messages (transactions); organizations need rules for processing these transactions. For some companies, this may involve linking from the social media application

to the firm's existing customer service application as Walmart does. Others may need to develop new applications to capture and report on incoming transactions that cannot be processed by existing applications. Examples include the use of Twitter to respond quickly to customer service problems or to support social media applications where customers are encouraged to submit and vote on new product ideas, such as Starbucks's My Starbucks Idea (www.mystarbucksidea.com) or Dell's IdeaStorm (www.ideastorm.com). Where large numbers of employees are empowered to use social media, new communications procedures may be needed to collect relevant information about their interactions, as Coca-Cola's request for employees to forward comments to an internal e-mail address illustrates.

4. Lessons for Implementing Internal Social Media Applications

Although we have focused on the use of social media to interact with customers, many of our findings and guidelines can also be applied to the implementation of social media within a firm to support knowledge-sharing among employees. As with VCEs, community building is central to the success of internal social media applications. However, because the potential change in work practices and relationships brought about by such applications is enormous (similar to the changes caused by the adoption of an enterprise system), there could be strong resistance if the implementation is not managed carefully.

CONCLUDING COMMENTS

More and more firms are using, or plan to use, social media platforms such as Twitter, Facebook, blogs, and client-hosted forums to communicate with their customers. But simply creating an online presence is not sufficient to ensure that a firm will gain business value from social media. Successful implementation strategies require three elements: mindful adoption, community building, and absorptive capacity. We developed guidelines from our analysis of the Fortune 500's use of social media and case studies of how three large U.S. corporations are successfully using popular social media platforms. By following the guidelines provided in this article, firms of all sizes will be better placed to gain business value from interacting with their customers and other stakeholders through social media.

APPENDIX 1: STUDY METHODOLOGY AND STATISTICS BY SOCIAL MEDIA PLATFORM

Data Collected for Each Firm

Between September and November 2009, we collected data from all Fortune 500 companies on their use of Twitter, Facebook, blogs, and client-hosted forums. To achieve this, we:

- Googled the social application + company name (e.g., “Facebook Walmart”). This meant we were only able to include public applications in our study; any applications running on an extranet or behind a firewall were excluded.
- Identified the corporate website for each organization.
- Visited the homepage for each company to evaluate the social media applications:
 - Are the applications readily accessible from the firm’s homepage (links or via search)?
 - Are the applications current (based on content posted during the month when data were collected)?

Twitter

- Number of Twitter feeds (average = two feeds per firm; range = 1 to 35)
- For first feed found:
 - Number of followers (average = 36,000; range = 1 to 1.6 million)
 - Total tweets (average = 668; range = zero to 35,000)
 - Date of most recent tweet (86% were during the month when data was collected)
- 78% of Twitter feeds were accessible from the firm’s homepage.

Facebook

- Number of fans (average = 86,000; range = zero to 5 million)
- Date of most recent wall post (80% had a wall post during month when data was collected)
- 76% of Facebook pages were accessible from the firm’s homepage.

Blogs

- Number of blogs (average = three blogs per firm)
- Counted blogs implemented on a public platform or client-hosted
- Date of most recent post in first blog located (89% were current)
- 78% of blogs were accessible from the firm’s homepage.

Client-hosted Forums

- Whether the firm hosts any discussion forums on its own website (11% host forums)
- 96% of forums were accessible from the firm’s homepage
- We did not measure the currency of content.

APPENDIX 2: METHODOLOGY FOR DEVELOPING CASE STUDIES

We collected data for the case studies by analyzing the content of each of the three firm’s website(s) and social media applications. We focused on the linkages among the firm’s websites and social media applications (Twitter, Facebook, blogs, and client-hosted forums) and on their community building and absorptive capacity activities.

Linkages Between Social Media and Websites

For each of the three firms, we started by visiting the corporate websites we used in our survey and then followed any available hyperlinks between the social media applications. We used Google searches to identify additional websites and develop a more complete inventory of the firm’s social media applications (Twitter, Facebook, blogs, client-hosted forums). Next, we recorded links between the websites and the various social media sites and the direction(s) of the links. To qualify as a link, a site needed to provide a hyperlink connection to a new site, such as a link from the corporate website to a social media site or a link from a social media site back to the website. Links could be one-way or two-way. In Facebook, for example, links typically were found either under the “Info” tab or under the “Favorites” listing.

To develop the social media network diagrams, we used social network analysis and visualization

software from Analytic Technologies.²⁰ We input the websites and social media applications as if they were nodes in a social network together with the links between them. The result was a pictorial representation of the firm's social media network and how these applications are linked to the organization's website(s) and to each other.

Some of the sites we observed were excluded from the analysis because:

- The visualization software could not process more than a specific number of nodes and linkages
- The applications were not customer focused
- We were uncertain that the firm sponsored the application.

However, most of the primary linked sites were included in the diagrams. Thus, while these diagrams are representative of the firm's applications, they are not necessarily exhaustive. The diagrams were originally prepared in January 2010 and updated in May 2010.

Based on the dispersion in the diagrams, we drew conclusions about whether the firm had adopted a centralized or decentralized approach to managing its social media applications.

Community Building and Absorptive Capacity

We visited the homepages of each firm's social media applications and analyzed the most recent content to provide a preliminary assessment of community building and absorptive capacity, based on the following questions:

Community Building

- Has the firm built a community with a critical mass of users (>1,000 Facebook fans)?
- Is the content current?
- Who creates content?
- Does the firm have publicly available social media policies for its employees and customers?

Absorptive Capacity

- Is the firm monitoring its site(s) based on responses to posts or direct messages?

- Can rules for message processing be identified or inferred from the firm's responses?

While we believe our findings are representative, they do not necessarily represent a complete analysis of all of a firm's social media applications.

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20 Borgatti, S. *Netdraw Network Visualization*, Analytic Technologies, 2002.