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SOCIAL MEDIA’S INFLUENCE ON BUSINESS-TO-BUSINESS SALES PERFORMANCE

Michael Rodriguez, Robert M. Peterson, and Vijaykumar Krishnan

The implementation of social media technology in a firm’s marketing strategy has been adopted by some forward-thinking sales forces. Sharing content and building a network of contacts are the principles behind social media. The utilization of social media (e.g., LinkedIn and Twitter) for reaching business-to-business clients is a relatively new phenomenon with performance outcomes essentially unknown. Data were collected from 1,699 business-to-business salespeople from over 25 different industries. Using structural equation modeling, the findings support that social media has a positive relationship with sales processes (creating opportunities and relationship management) and relationship sales performance.

OVERVIEW OF SOCIAL MEDIA AND GROWTH

Social media have become ubiquitous in many commerce circles and a global phenomenon the past several years. According to the Nielsen Company (2010), social media users worldwide grew nearly 30 percent in 2010, from 244 million to nearly 315 million users. Research from Gartner’s Consumer Technology and Markets group forecasted that global spending on social media would total $14.9 billion in 2012 (Gupta 2011). Social media, such as Twitter, have enabled customers to express their feelings regarding a product or service they have purchased. With this feedback, businesses can improve decisions on how to serve clients and create more informed solutions, thus increasing customer loyalty (Myron 2010). However, social media, also known as “social CRM” (customer relationship management), are still working their way into business-to-business (B2B) sales (Lager 2009). Results by ES Research Group (2009) show that only a small percentage of sales professionals use social media tools in their sales process.

CURRENT CHALLENGES AND OBSTACLES FOR BUSINESS-TO-BUSINESS SALES

B2B sales face a number of challenges in today’s environment, such as increased competition, slowed world economy, commoditization of products, and qualified lead generation, to name a few. Because sales organizations lose customers every year for a variety of reasons, a steady need exists to expand the customer base by building the sales pipeline (Jolson and Wotruba 1992). One of the constant obstacles in B2B sales is finding the right type of clients through prospecting efforts, and then discovering the decision makers within the network of external stakeholders.

A growing challenge for B2B sales is the implementation of technology and its impact on the sales process. Current research has tested the influence sales technology has had on developing deeper customer relationships (Hunter and Perreault 2006; Rodriguez and Honeycutt 2011) and improving internal administrative performance (Hunter and Perreault 2006; Stoddard, Clopton, and Avila 2006). Focus has also rested upon specific sales technology, such as CRM (Rapp, Agnihotri, and Forbes 2008; Tanner et al. 2005) and sales force automation tools (SFA) and their impact on performance (Keramati et al. 2010). Ahearne, Jelinek, and Rapp reported that CRM systems improve the sales professional’s ability to communicate clearly with clients and “improve the ability to win business” (2005, p. 380). Other research has shown that CRM technology has helped sales professionals improve closing rates and generate revenue faster (Erffmeyer and Johnson 2001).

Building on this existing SFA and CRM literature, sales technology, in the form of social media, has been used by organizations to enhance the performance of sales tasks (Panagopoulos 2010). With the evolution of the Internet and Web 2.0, the use of social media within the B2B environment has progressed from a simple tool used for connecting with

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friends to an important platform for reaching new buyers and developing deeper relationships with customers.

The purpose of this study is to empirically test whether social media significantly affect sales processes and B2B sales performance. To the best of our knowledge, no academic study exists in the literature that measures social media and performance effects within a B2B context. Hence, the current study makes several contributions. First, the study of social media and its use within the sales organization is an extension of the existing research and literature in sales technology. Second, it contains data from numerous diverse firms, aiding in pioneering an understanding of how social media might influence sales performance. Third, we suggest that a link exists between social media and performance metrics mediated by opportunity creation and management of customer relationships—two critical components of sales processes. Thus, we address the usefulness of social media in a B2B setting.

We begin the discussion by using an existing theory, social capital, as a foundation for understanding social media and describe the evolution of social media as an extension of the sales technology domain. We then discuss our hypotheses development, which focuses on sales process behaviors—namely, opportunity creation, opportunity management, and relationship management, and the potential influence of social media as an emerging tool. The methodologies of this study are then shared, followed by results. Finally, a discussion of the implications for research and practice is presented along with ideas for future research.

THEORETICAL BACKGROUND

Social Capital Theory

Social capital theory provides a foundation for understanding the impact and importance of social media for organizations. Social capital theory is a sociological concept that refers to connections within and between social networks (Lin 2001). This framework helps understand how human interaction creates opportunities to leverage relationships for solutions in the business community. People joining or creating these networks enjoy higher rates of return because they are informed about, and perhaps help create, opportunities (Burt 1992). Social capital arises from individuals creating and controlling information flow in a network (Burt 1992). Social capital is “the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition” (Bourdieu and Wacquant 1992, p. 119). Social capital represents the goodwill available to individuals or groups from their network of relationships (Adler and Kwon 2002). It is argued that social capital facilitates information sharing, mutual trust, and joint problem solving, thus enhancing efficiency of transactions (McEvily and Marcus 2005). Research on the causal influence of social capital on firm outcomes should increase our understanding of managing relationships. Social media networks provide a perfect opportunity for investigating the genesis and usefulness of social capital. Sharing, rather than telling or selling, is the principle behind social media. Using a “build your network before you need it” premise, individuals in networked relationships with potential customers may find it easier to gain traction with clients by meeting through means other than “cold calls.”

Organizations that proactively encourage employees to network can aggregate these interactions into an intangible resource (Adler and Kwon 2002). This type of in-depth interaction can create profitable opportunities for organizations. For instance, a sales proposal that might otherwise have been rejected outright could now make it to the consideration set. The “connection” in the customer firm may help the proposal to the next stage. Certainly, the proposal will need to stand on its own merit, but the ability to present to the decision-making unit is a coveted position for a selling organization.

In the B2B sales context, prospect development and customer acquisition are two central themes in sales performance. This paper contends that firms can increase social capital by systematically leveraging social media to expand networks and, as a result, increase performance within their firms. Social capital exists at the individual and collective levels. Therefore, strength in social capital can shorten transaction times because of the social connections between knowledge seekers and knowledge owners (Baehr and Alex-Brown 2010). In essence, the prior social connectivity between buyers and sellers can potentially affect outcomes based on networked familiarity and trust—that is, social capital between the parties involved.

Van Deth (2003) concluded that an increase in social capital allows for less costly collaborative transactions between concerned parties. Value, mutual trust, and reciprocity enhance the chances of mutually beneficial exchanges through reduced risk of failed transactions. Although Van Deth’s work is from a societal perspective, his conclusions are readily useful for a sales force and selling organization.

Sales Technology Adoption

Selling organizations have invested billions of dollars in technology in order to make their sales forces more effective and efficient in managing the sales process (Hunter and Perreault 2007) and in building stronger relationships with buyers (Cannon and Perreault 1999). There has been a research emphasis on sales technology use due to several technological challenges within sales organizations: high failure rates, low user acceptance, and high implementation costs (Leigh and Marshall 2001).
Panagopoulos defines sales technology “as any information and communication technology employed by the sales organization to conduct its essential activities” (2010, p. 15). For sales technology to improve performance, sales professionals must accept and employ the technology within their job function (Rodriguez and Honeycutt 2011; Venkatesh et al. 2003). Some sales-focused research on technology innovation posits that a positive relationship exists between usage and performance (Ahearne, Srinivasan, and Weinstein 2004). The assumption is that “increased utilization (of technology) is a desirable behavior and implies better performance” (Heine, Grover, and Malhotra 2003, p. 191). Before discussing social media’s influence in the B2B environment, we first review the evolution of social media within the CRM context.

**From Social Media to Social CRM**

Scott defines social media as a tool that “provides a way people share ideas, content, thoughts, and relationships online” (2009, p. 38). As more organizations embraced social media, tools such as LinkedIn, Facebook, and Twitter were used to directly communicate to buyers and, as a result, social media became an integral part of a firm’s CRM strategy. Social CRM was born, growing out of the need to attract Internet users by providing compelling content (Leary 2008). This content not only connected individuals to other individuals, groups, organizations, and interests but also created a platform for all stakeholders to have a business conversation with germane content. Social CRM enables companies to spot emerging market trends to get a head start in market development, rather than merely responding to feedback (Warfield 2009). “Social CRM is a philosophy and a business strategy, supported by a technology platform, business rules, workflow, processes and social characteristics, designed to engage the customer in a collaborative conversation in order to provide mutually beneficial value in a trusted and transparent business environment” (Myron 2010, p. 28). The next level of CRM allows end users to leverage social media to perform sales-related tasks (Panagopoulos 2010). This new era of sharing content and creating conversations results in greater engagement with the customer, and in turn, means creating deeper, meaningful relationships with prospects, customers, and partners.

**HYPOTHESIS DEVELOPMENT**

The current study evaluates the role of social media and its impact on sales processes and sales performance. Sales processes are activities that a sales professional undertakes to secure a lead, turn it into a prospect, and then eventually a customer. Practicing effective sales process behavior has evolved from selling products and services to a profession where salespeople are focused on increasing customer productivity (Leigh and Marshall 2001) and organizational performance. The theoretical framework in Figure 1 summarizes these concepts and is further developed in this section. The constructs and paths in Figure 1 evaluate the impact social media usage has on sales processes and sales performance. Specifically, we investigate the linear sequence of the sales processes creating opportunity, understanding customers, relationship management, and the relative influence of social media usage.

**Creating Opportunity**

Creating opportunities is one of the first steps in the sales process. As part of that process, salespeople must first undertake prospecting initiatives such as cold calling, canvassing, or advertising in order to create opportunities for the organization (Moncrief and Marshall 2005). These methods have been questioned in their ability to reach qualified buyers and decision makers effectively. In Heinonen and Michelsson’s (2010) study on creating customer relationships, their findings indicate that prospect initiation is challenging and is significantly different between business-to-customer (B2C) and B2B relationships. Prospecting is a continuous requirement since business is dynamic: Customers go out of business, switch to other suppliers, relationships deteriorate, or stakeholders desire higher sales levels. It is also a challenge since sales organizations face the difficulty of dealing with prospects that are unqualified (Van Doren and Stickney 1990). A qualified prospect is one having the need and the buying power, and who is receptive to being contacted by a sales organization (Jolson and Wotruba 1992).

Creating opportunities through prospecting can be a highly complex process that pools information on geographical data as well as customer segmentation figures (Levy and Weitz 2008) in order to gain a better understanding of specific target markets. Sales professionals must capture detailed information on potential clients in order to gain a better understanding of their needs, discover key buying influences, and understand their buying process. Once this information is obtained, the next and equally challenging step is to qualify the prospect.

Social media can be used to qualify leads early in the sales cycle by researching the profile of the ideal target prospect (Shih 2009). Social media platforms such as Facebook and LinkedIn provide detailed information on a prospect. These tools enable sales professionals to increase their social capital and build deeper relationships by sharing product information that is a better fit for the prospective client. Knowing more about the prospect makes the first call less invasive since the interaction, questions, and presentation are more targeted to the prospect’s profile.

Aster Data Systems, a technology solutions firm based in Silicon Valley, for example, used LinkedIn to dramatically grow its business. Senior management asked all employees
to tap their social networks for prospects by searching for the
words “data warehousing” in their contacts’ title or functional
expertise. Within months, Aster Data Systems was able to
identify and qualify those who may be interested in their
database solution and successfully signed more than a dozen
B2B clients within a year (Shih 2009).

By utilizing social media to qualify prospects and strengthen
an organization’s social capital, sales firms can focus on ideal
clients that fit their business model and, as a result, may
minimize time wasted on less than ideal customers and maxi-
mize time spent focusing on more promising opportunities.
Therefore, we propose the following:

Hypothesis 1: Social media usage has a positive rela-
tionship with a selling organizations’ ability to create
opportunities.

Understanding Customers

Once prospects are qualified, the next linear step in the sales
process is managing the opportunity by gaining a deeper un-
derstanding of their needs. Sales professionals spend significant
time on this intricate step. Opportunity management is the
progression of taking prospects and making them first-time
clients, assuming the client sees a value match. Research on sales
process effectiveness incorporates understanding customers and
is defined as the ability to complete short-term outcomes in
the sales exchange by being able to analyze opportunities and
improve closing rates (Stoddard, Clopton, and Avila 2006). Un-
derstanding customers can present a number of challenges, such
as length of sales cycle, complexity of the buying process, or sell-
ing to multiple decision makers. To manage these obstacles, sales
professionals must maintain continuous collaboration externally
with the client and key influencers. From a sales perspective,
collaboration involves a value chain model (Weitz, Castleberry,
and Tanner 2004) and a social capital network (Bourdieu and
Wacquant 1992) in which “supply chain partners, customers,
and support personnel provide input and data on the selling
and buying situation” (Tanner et al. 2005, p. 174).

Social media helps sales professionals in pursuing the right
decision makers during this stage. Forrester Research surveyed
1,200 technology executives on their social media participation
in the buying cycle. Their findings show that over 75 percent
of business technology decision makers utilize social media
to obtain information or opinions on specific product and
services. Those respondents also said peers within their in-
dustry influence their buying decision more than any other
source (Ramos and Young 2009). Sales professionals cannot
underestimate the level of interaction or the level of influence
decision makers can have on one another in the social media
environment. Interaction among key decision makers within
social media may increase an organization’s social capital and
influence opportunities that are currently in the pipeline.
Therefore, we propose:

Hypothesis 2: Social media usage has a positive relation-
ship with a selling organizations’ ability to understand
customers.

Figure 1
Conceptual Model of Social Media’s Influence on Sales Process and Sales Performance
Relationship Management

Managing relations with strategic accounts has been a keen research topic since Ford (1980) and Dwyer, Shurr, and Oh (1987) outlined what was involved in contemporary business relationships. Morgan and Hunt define relationship marketing as “all marketing activities directed towards establishing, developing, and maintaining successful relational exchanges” (1994, p. 22). Relationships are two-sided by nature: keeping them in balance, so both share in the benefits, is a continuous challenge between buyer and seller.

Customers may obtain value in a relationship with a strategic customer from time saved, convenience, or reduced perceived risk, which helps build relational value. One of the goals in relationship marketing is to create stronger customer relationships that enhance seller performance, including sales growth, market share, and profits (Crosby, Evans, and Cowles 1990; Davies, Ryals, and Holt 2010; Morgan and Hunt 1994). “Relationship-building performance with customers is the extent to which the salesperson performs activities that cultivate a relationship that mutually benefits the selling and buying firms” (Hunter and Perreault 2007, p. 19). Studies examining sales professionals’ behaviors toward managing customers suggest that relationship management is a key factor in sales performance (Anderson and Oliver 1987; Cravens et al. 1993; Hunter and Perreault 2007). Day’s (1994) market sensing model proposes information exchange between buyer and seller is a key aspect in relationship building and serves as a foundation for how technology can streamline information sharing between buyer and seller. Past research supports that technology, such as CRM, improves the sales professional’s ability to communicate with customers and manage input from these customers (Ahearne, Jelinek, and Rapp 2005). Hunter and Perreault’s study also provides evidence that the use of sales technology for communicating information increases an organization’s ability to propose integrative solutions (2007).

Building on this literature, sales technology in the form of social media is being utilized to strengthen a firm’s social capital and build deeper strategic relationships through online interactions (Ellonen, Tarkiainen, and Kuivalainen 2010). Sales organizations are thinking differently on how they communicate with customers and utilize social media to share information to build meaningful conversations, networks and relationships. Therefore we propose the following:

**Hypothesis 3:** Social media usage has a positive relationship with a selling organizations’ ability to manage relationships.

Sales Performance

Past research has supported that sales technology can enable sales professionals to improve sales performance, such as efficiency with administrative and relationship forging tasks and sales process effectiveness (Behrman and Perreault 1982, 1984; Hunter and Perreault 2007). Sales performance is defined as “behavior evaluated in terms of its contribution to the goals of the organization” (Johnston and Marshall 2006, p. 412). In the current study, performance is separated into two categories that conceptualize the two areas of sales performance constructs: relationship performance and outcome-based performance. Relationship sales performance is based on relational measures of sales performance that focus on behaviors that strengthen the relationship between buyers and sellers (Hunter and Perreault 2007). Outcome-based sales performance measures are an important aspect in measuring salesperson performance (Anderson and Oliver 1987; Cravens et al. 1993), and are reflected by quota achievement, growth in average billing size, increases in sales productivity, and overall revenue gain. Superior relationship sales performance should subsequently drive a superior outcome-based sales performance. Past studies support that relational sales behaviors with customers are a “key aspect of externally oriented sales performance” (Hunter and Perreault 2007, p. 19). Although these two aspects of performance are expected to be correlated, theoretically, they are different aspects of sales performance.

Social media, used to enhance a firm’s social capital, may influence both relationship and outcome-based aspects of sales performance. For instance, relationships developed through the social media network can increase the pool of qualified prospects and enhance relationships with current customers, which might lead to increased customer retention. Firms using social media technology may communicate with customers who are comfortable using social media to search for information on products or services that fulfill their business needs. Using social media may help organizations better serve current clients by distributing value-added content or provide more effective communication. Social media should affect outcome-based measures of sales performance as well. A recent poll of 668 New Zealand small and medium-size businesses found that if a Web presence was generating 20 percent or more of their revenues, those with a social media program were outperforming those who did not have a social media presence (“Domainz eBiz Review” 2010). In a study of financial advisors, those who used social media noted a 19 percent increase in revenue during the previous year and expanded their client base by 21 percent (Mitchell 2010).

Therefore, we propose the following:

**Hypothesis 4:** Social media usage has a positive relationship with a selling organizations’ relationship sales performance.

**Hypothesis 5:** Social media usage has a positive relationship with a selling organizations’ outcome-based sales performance.
METHODOLOGY

Strategy and Sample

Our strategy is to test the hypotheses concerning the interrelationships among social media, sales processes, and sales performance in a nomological net via structural equation modeling. To test our hypotheses, data gathered in conjunction with Miller Heiman, a global leader in sales performance consulting, were used. Respondents were offered an executive summary of the results and a copy of the findings from the previous year’s study in return for their participation in the survey. Participants who responded to e-mail invitations were business executives in revenue-generating roles across job functions, notably different levels in sales and marketing including executives from C-SUITE. Data were collected using an e-mailed link to an online survey supported by two reminder e-mails. In all, 15,110 individuals clicked on the link; 1,699 respondents completed the 134-item survey, yielding a 11.2 percent response rate. Research on survey responses suggests that the response rate of this study is consistent with Web-based data collection, typically 6 percent to 15 percent (Lozar Manfreda et al. 2008). To assess nonresponse bias (Armstrong and Overton 1977), early and late respondent means were compared over the course of one month. This process did not reveal any significant differences between the respondents.

Sample Description

Respondents came from a range of industries (see Table 1). A sizable portion (7 percent or more in each category) worked in consulting, professional services, technology—software, business services, and manufacturing. Health-care consumables, technology—hardware, industrial and chemical—and technology services were also suitably represented in the sample (4 percent to 7 percent). The rest of the sample came from 20 other industries. Approximately 46 percent of the respondents worked for organizations employing 24 or fewer salespeople: 18.5 percent for those employing 25–99 salespeople, 18 percent for those employing between 100 and 499 salespeople, and 17.5 percent for those employing 500 or more salespeople.

The sample shows global diversity with respondents from 40 different countries showing significant representations from the United Kingdom, Germany, Australia, and Canada, with roughly half (51.3 percent) the respondents coming from companies headquartered in the United States. Males comprised 77.5 percent of the respondents. The sample is also diverse with respect to job descriptions of the respondents (see Table 2). Sales vice presidents and sales directors constitute the largest percentage of respondents in the sample (25.7 percent), followed by sales managers (18.2 percent). Other categories of respondents who represented more than 5 percent of the sample were business development managers (11.2 percent), sales representatives (9.1 percent), presidents (8.1 percent), C-level executives (8.4 percent), and account managers (7.9 percent).

The sample shows that social media are in their infancy. Table 3 provides the scores on social media influence based on a 3-item, 21-point scale. Social media influence ranges from 7.67 in the aerospace sector to 12.5 in the education sector. It appears to be highest in service sectors. Perhaps, being more people oriented, the service sectors are more inclined to adopt social media to influence business. In contrast, social media adoption among the process-oriented sectors (e.g., utilities, industrial, and chemical) appears to be more tentative. Interestingly, even the education sector, which rated highest (12.5/21), was at the sixtieth percentile of the scale. Numerous factors contribute to disparity in social media use: (1) organizations in different industries are learning to manage

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace and Defense</td>
<td>2.2</td>
</tr>
<tr>
<td>Business Services</td>
<td>7.1</td>
</tr>
<tr>
<td>Construction</td>
<td>2.6</td>
</tr>
<tr>
<td>Consulting and Professional Services</td>
<td>11.3</td>
</tr>
<tr>
<td>Consumer Products</td>
<td>1.8</td>
</tr>
<tr>
<td>Education</td>
<td>1.6</td>
</tr>
<tr>
<td>Oil/Gas</td>
<td>2.8</td>
</tr>
<tr>
<td>Energy</td>
<td>1.7</td>
</tr>
<tr>
<td>Finance and Banking</td>
<td>3.9</td>
</tr>
<tr>
<td>Insurance</td>
<td>2.1</td>
</tr>
<tr>
<td>Government</td>
<td>1.7</td>
</tr>
<tr>
<td>Health Care—Capital</td>
<td>3.8</td>
</tr>
<tr>
<td>Health Care—Consumables</td>
<td>6.0</td>
</tr>
<tr>
<td>Health Care—Services</td>
<td>3.2</td>
</tr>
<tr>
<td>Hospitality and Food Service</td>
<td>0.8</td>
</tr>
<tr>
<td>Food Service</td>
<td>1.4</td>
</tr>
<tr>
<td>Industrial and Chemical</td>
<td>4.3</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9.0</td>
</tr>
<tr>
<td>Media</td>
<td>0.6</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>2.4</td>
</tr>
<tr>
<td>Technology—Hardware</td>
<td>5.9</td>
</tr>
<tr>
<td>Technology—Software</td>
<td>7.3</td>
</tr>
<tr>
<td>Technology—Services</td>
<td>4.8</td>
</tr>
<tr>
<td>Telecommunications—Equipment</td>
<td>2.0</td>
</tr>
<tr>
<td>Telecommunications—Services</td>
<td>3.4</td>
</tr>
<tr>
<td>Transportation</td>
<td>2.0</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.6</td>
</tr>
<tr>
<td>Wholesale</td>
<td>1.5</td>
</tr>
<tr>
<td>Missing</td>
<td>2.1</td>
</tr>
<tr>
<td>**Total</td>
<td><strong>100.0</strong></td>
</tr>
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</table>
this interface at different rates, (2) firms wish to codify their strategic or employee guidelines for pursuing social media interaction, (3) industries make decisions at varying speeds, or (4) if most buyers are known to selling organizations, they might use less social media. But this is all conjecture. Overall, these relatively low scores indicate that social media influence is still in its formative years with much potential remaining to be unlocked. Table 3 nevertheless indicates significant social media adoption.

DATA ANALYSIS

For our data analysis, we followed standard protocol (Churchill 1979; Churchill and Peter 1984), including items with slightly varying nuances and ensuring adequate representation of the domains of interest previously described. Following prevailing psychometric methods (Anderson and Gerbing 1988), we followed a two-step approach. First, a confirmatory factor analysis (CFA) was specified in Amos 17.0 with the six constructs—creating opportunity, managing opportunity, managing relationships, social media, relationship sales performance, and outcome-based sales performance.

Using available data, 1,304 items in the data set gave us considerable leeway in obtaining items that best met face validity for the constructs under study. We used the CFA to purify the measures, assess the unidimensionality of the scale items, and to assess discriminant validity among these constructs. Fit was evaluated by an inspection of a constellation of indicators. Based on the residual analysis and reexamination of the scale items, some items were dropped and measures were adjusted. For example, the item “Our executives are very effective at selling at the executive level” did not clearly connect with the opportunity management construct and was omitted. Thus, the measures were systematically purified by dropping items while ensuring that domain content representation remained intact. Items corresponding to the social media, creating opportunity, understanding customers and, relationship management constructs were measured on a seven-point scale (1 = “strongly disagree,” 7 = “strongly agree”). Items corresponding to the sales performance constructs were measured on an eight-point scale (1 = “more than 10 percent decrease,” 4 = “remained flat,” 8 = “more than 20 percent increase”). Table 4 illustrates the item loadings across a series of “purifying” CFAs and provides an understanding of the fit of each item. Also, chi-square difference tests across nested CFA models have been included in evidence that our measurement model reflects the best available latent construct assessment. The fit indices of the adopted final measurement model indicate a good fit ($\chi^2_{(237)} = 1,134.7$; RMSEA [root mean square error of approximation] = 0.047 (< 0.05); CFI [comparative fit index] = 0.949 (> 0.9); and normed $\chi^2$ Cmin/df [degrees of freedom] = 4.78 (< 5.0)).
### Table 4
Confirmatory Factor Analysis and Construct Validity

<table>
<thead>
<tr>
<th>Chi-Square Difference Tests Across Nested CFA Models</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Final CFA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model χ²</td>
<td>5,278.5</td>
<td>3,792.5</td>
<td>2,212.08</td>
<td>1,428.3</td>
<td>1,134.7</td>
</tr>
<tr>
<td>Model df</td>
<td>461</td>
<td>376</td>
<td>249</td>
<td>237</td>
<td>237</td>
</tr>
<tr>
<td>Difference in χ²</td>
<td>—</td>
<td>1,486</td>
<td>1,580.42</td>
<td>783.78</td>
<td>316.34</td>
</tr>
<tr>
<td>Difference in df</td>
<td>—</td>
<td>85</td>
<td>127</td>
<td>12</td>
<td>—</td>
</tr>
<tr>
<td>Is the chi-square difference with previous model significant?</td>
<td>—</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Creating Opportunity**

- **Factor Loadings**

<table>
<thead>
<tr>
<th>Creating Opportunity</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Final CFA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have a formalized value proposition that is very compelling to our prospects.</td>
<td>0.59</td>
<td>0.60</td>
<td>0.61</td>
<td>0.62</td>
<td>0.62</td>
</tr>
<tr>
<td>Specific criteria have been established to define an acceptable prospect for our company.</td>
<td>0.60</td>
<td>0.62</td>
<td>0.63</td>
<td>0.64</td>
<td>0.64</td>
</tr>
<tr>
<td>Our salespeople have a solid understanding of our customers’ business needs.</td>
<td>0.67</td>
<td>0.63</td>
<td>0.62</td>
<td>0.61</td>
<td>—</td>
</tr>
<tr>
<td>Our salespeople are experts in our products and services.</td>
<td>0.54</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We consistently follow a standardized process to qualify opportunities.</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
</tr>
<tr>
<td>Our salespeople are always held accountable for converting leads to closed business.</td>
<td>0.62</td>
<td>0.63</td>
<td>0.63</td>
<td>0.62</td>
<td>0.62</td>
</tr>
</tbody>
</table>

**Understanding Customers**

- **Factor Loadings**

<table>
<thead>
<tr>
<th>Understanding Customers</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Final CFA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have a disciplined process that is consistently used to pursue all large deals.</td>
<td>0.62</td>
<td>0.59</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Our organization collaborates across departments to pursue large deals.</td>
<td>0.53</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We have an established procedure to know when to stop investment in large deals.</td>
<td>0.53</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>In a large deal, we always gain access to key decision makers.</td>
<td>0.67</td>
<td>0.67</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We have a formal process for utilizing executive-to-executive selling.</td>
<td>0.62</td>
<td>0.60</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We clearly understand our customers’ issues before we propose a solution.</td>
<td>0.70</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
<td>0.71</td>
</tr>
<tr>
<td>Win or lose, we get accurate feedback on all proposals from our customers.</td>
<td>0.69</td>
<td>0.71</td>
<td>0.77</td>
<td>0.77</td>
<td>0.77</td>
</tr>
<tr>
<td>When we give price concessions, we always get comparable value in return.</td>
<td>0.62</td>
<td>0.63</td>
<td>0.66</td>
<td>0.66</td>
<td>0.66</td>
</tr>
<tr>
<td>When we lose a significant sales opportunity, we always know the reason why.</td>
<td>0.65</td>
<td>0.67</td>
<td>0.75</td>
<td>0.74</td>
<td>0.74</td>
</tr>
<tr>
<td>Our salespeople immediately communicate with management when something unexpected happens to jeopardize a sale.</td>
<td>0.60</td>
<td>0.62</td>
<td>0.63</td>
<td>0.63</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Relationship Management**

- **Factor Loadings**

<table>
<thead>
<tr>
<th>Relationship Management</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Final CFA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our organization regularly collaborates across departments to manage strategic accounts.</td>
<td>0.59</td>
<td>0.58</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We always review the results of our solution with strategic accounts.</td>
<td>0.75</td>
<td>0.75</td>
<td>0.73</td>
<td>0.72</td>
<td>0.72</td>
</tr>
<tr>
<td>When we lose a strategic account, we always know the reasons why.</td>
<td>0.67</td>
<td>0.67</td>
<td>0.69</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>We jointly set long-term objectives with our strategic accounts.</td>
<td>0.75</td>
<td>0.76</td>
<td>0.77</td>
<td>0.78</td>
<td>0.78</td>
</tr>
<tr>
<td>We have relationships and dialog at the highest executive levels with all our strategic accounts.</td>
<td>0.71</td>
<td>0.72</td>
<td>0.72</td>
<td>0.73</td>
<td>0.73</td>
</tr>
<tr>
<td>We regularly engage our strategic accounts in our product/service planning process.</td>
<td>0.69</td>
<td>0.69</td>
<td>0.68</td>
<td>0.71</td>
<td>0.71</td>
</tr>
<tr>
<td>Our salespeople are definitely effective at producing year-over-year revenue growth from existing customers.</td>
<td>0.62</td>
<td>0.62</td>
<td>0.62</td>
<td>0.62</td>
<td>0.62</td>
</tr>
<tr>
<td>Specific criteria have been established to define a strategic account in our company.</td>
<td>0.60</td>
<td>0.60</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Relationship Sales Performance**

- **Factor Loadings**

<table>
<thead>
<tr>
<th>Relationship Sales Performance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Final CFA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compared to last year, new account acquisition has increased.</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.77</td>
<td>0.77</td>
</tr>
<tr>
<td>Compared to last year, the number of qualified opportunities/leads has increased.</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.76</td>
<td>0.76</td>
</tr>
<tr>
<td>Compared to last year, our customer retention rate has increased.</td>
<td>0.53</td>
<td>0.53</td>
<td>0.53</td>
<td>0.54</td>
<td>0.54</td>
</tr>
</tbody>
</table>
Convergent Validity

Factor loadings were inspected, average variance extractions computed, and construct reliabilities evaluated. The factor loadings in the final measurement model varied from a minimum of 0.54 to 0.87, with most of the factor loadings above 0.70 (Table 4). The average variance extracted was 0.50 or over for all the constructs. The construct reliabilities varied from 0.74 to 0.88 (Table 5), indicating a high internal consistency.

Taken together, these indices provide evidence for convergent validity in the measurement model.

Discriminant Validity

The confidence interval (±2 standard errors) did not include 1.0 for any of the correlations between the constructs (Anderson and Gerbing 1988), providing evidence for discriminant validity. In addition, the constructs satisfied the
stronger test of discriminant validity (Fornell and Larcker 1981) in extracting more variance on average in comparison to the squared intercorrelations with other constructs, with a few exceptions (Table 5).

Nomological Validity

All 15 intercorrelations between the 6 constructs in the measurement model were significant, indicating nomological validity among constructs (Table 5).

Check for Common Method Bias

Interconstruct correlation on the performance measures give rise to common method bias concerns, particularly the performance measures correlating at 0.83 (Table 5). Accordingly, the unmeasured latent method factor approach (Bagozzi 2011; Williams, Buckley, and Cote 1989) was used to check for common method bias. First, the trait-only CFA was run with hypothesized trait factors ($\chi^2_{(237)} = 1,113.7$; RMSEA = 0.047 (< 0.05); CFI = 0.949 (> 0.9); and normed $\chi^2$ Cmin/df = 4.78 (< 5.0)). Second, the method-only model was run with all measures loading on a single factor ($\chi^2_{(252)} = 8,594.2$; RMSEA = 0.1407 (> 0.05); CFI = 0.526 (< 0.9); and normed $\chi^2$ Cmin/df = 34 (> 5.0)). The method-only model shows a very poor fit. Finally, the trait-method model was run, including the focal traits and the single method factor ($\chi^2_{(213)} = 738.9$; RMSEA = 0.038 (< 0.05); CFI = 0.97 (> 0.9); and normed $\chi^2$ Cmin/df = 3.46 (< 5.0)). The chi-square difference test between the trait-method model and the method-only model revealed significance of trait variance ($\Delta\chi^2_{(39)} = 7,855.3 > \chi^2_{(39)}^{critical} = 54.6$). Similarly, the chi-square difference test between the trait-method model and the trait-only model revealed significance of method variance ($\Delta\chi^2_{(15)} = 395.8 > \chi^2_{(15)}^{critical} = 24.5$).

Although both the differences are significant, the method-only model shows poor fit overall. Further, the interconstruct correlations between the two performance measures did not change significantly between the traits-only (0.83) and trait-method (0.81) models. Thus, the results suggest a slight influence of the common method bias; however it is not sufficient to confound the substantive relationship between the two performance facets.

Taken together, the evidence supporting convergent validity, discriminant validity, and nomological validity provides adequate construct validity for the measurement model. Next, to test the hypothesized link H1–H4, a structural equation model was analyzed (Figure 2).

We expect the causal chain, creating opportunity to understanding customers, to managing relationship, to relationship sales performance, to outcome-based sales performance, to be in line with the sales funnel process. Testing of this causal chain is not the primary goal in this paper, although its replication would reassure and provide additional nomological validity. This paper is interested in investigating the influence of social media usage on the elements of the causal chain dictated by

Figure 2
Social Media’s Influence on Sales Process and Sales Performance
the sales funnelling process. Accordingly, the structural equation model was constructed along these lines.

The fit indices of the initial structural model indicate a good fit ($\chi^2_{(242)} = 1,163.8; \text{RMSEA} = 0.047 (< 0.05); \text{CFI} = 0.949 (> 0.9); \text{and normed} \chi^2 \text{Cmin/df} = 4.80 (> 5.0)$). All the path coefficients among the sales process causal chain were significant, providing nomological validity.

The path from social media usage to creating opportunity was significant ($\beta = 0.43, p < 0.001$), supporting H1. The path from social media to understanding customers was not significant ($\beta = 0.05, p > 0.09$). Thus, H2 is not supported. The path from social media usage to relationship performance was significant ($\beta = 0.12, p < 0.001$), supporting H3. The path from social media usage to outcome-based sales performance was not significant ($\beta = 0.05, p > 0.09$). Thus, H5 is not supported.

**Post Hoc Mediation Analysis**

An alternative model, eliminating the path between creating opportunity and understanding customers, showed a significantly poorer fit than the model shown in Figure 2 ($\chi^2_{(243)} = 1,563.9; \text{RMSEA} = 0.057 (> 0.05); \text{CFI} = 0.925 (> 0.9); \text{and normed} \chi^2 \text{Cmin/df} = 6.44 (> 5.0)$) but rendered the path from social media usage to understanding customers significant ($\beta = 0.35, p < .001$). This pattern of results implies a full mediation of the influence of social media on understanding customers through opportunity creation.

Another alternative model, eliminating the path between relationship sales performance and outcome-based sales performance, showed a significantly poorer fit ($\chi^2_{(243)} = 2,105.0; \text{RMSEA} = 0.067 (> 0.05); \text{CFI} = 0.894 (< 0.9); \text{and normed} \chi^2 \text{Cmin/df} = 8.66 (> 5.0)$) but rendered the path from social media usage to outcome-based sales performance significant ($\beta = 0.17, p < 0.001$). Therefore, the analysis demonstrates full mediation of the influence of social media on outcome-based sales performance through indirect influence on relationship sales performance.

A final model, eliminating the nonsignificant paths (dotted paths in Figure 2), did not reveal any significant changes in the fit parameters ($\chi^2_{(244)} = 1,170.5; \text{RMSEA} = 0.047 (< 0.05); \text{CFI} = 0.947 (> 0.9); \text{and normed} \chi^2 \text{Cmin/df} = 4.79 (> 5.0)$). All the path coefficients were identical.

Taken together, this pattern of results reveals that social media significantly influences the sales processes, particularly those involving opportunity creation and management of relationships. Social media usage also directly influences relationship sales performance. Although social media usage does not directly influence the outcome-based sales performance, there is an indirect influence from sales processes.

**DISCUSSION AND MANAGERIAL IMPLICATIONS**

Utilizing social capital theory as a foundation for building value with customers, this research provides an understanding of how social media usage impacts sales processes and B2B sales performance. The empirical results strongly support that social media usage has a positive relationship with selling organizations’ ability to both create opportunities and manage relationships. In terms of performance, the study also found that social media usage has a positive relationship with relationship sales performance, but not outcome-based sales performance.

The findings provide both a justification for use of social media tools for B2B sales organizations and make a pioneering contribution to the existing literature stream pertaining to sales technology. To date, no other study has empirically examined social media practices within the B2B sales context and tied it to performance with such a large cross-sectional sample. Consequently, the results from this study noticeably contribute to the small body of literature that is focused on linkages between social media and B2B sales performance.

The research results have important implications for B2B sales organizations. With a challenging business environment, a greater number of competitors, and more knowledgeable business buyers, organizations need to leverage the most current sales technology and include social media in order to increase identification of qualified B2B customers, continue to build deeper relationships, and as a result strengthen their social capital. As this study has shown, using social media increases sales organizations’ relationship sales performance. Thus, adding social media to a firm’s marketing strategy is critical to doing business in today’s conversation-laden sales process. A range of implications exists for selling firms that are contextually dependent.

First, businesses need to think differently regarding how they communicate with prospects and customers. Lager (2009) suggests creating a two-way conversation with the aid of white papers versus mass e-mailing documents to a prospect database: a “pull” strategy rather than a “push” strategy. Organizations can accomplish this by coordinating webinars between the firm and prospects in order to share ideas on a specific topic and create a value conversation. Webinars provide a means in which customers can interact via social technology, enabling “them to feel like they have immediate and direct access to the company” (Lager 2009, p. 32). Webinars are also a powerful tool in distributing important content and attracting prospects that are seeking specific products or services.

Second, companies can engage clients in conversations via their own Web sites and blogs. Selling organizations need to dismiss the typical approaches and be proficient at engaging
in conversations with social customers. Prospecting via social media will require posting thoughts, studies, and so forth, in order to engage others and create more in-depth opportunities for both parties. This is not the singular domain of the sales function; marketing should also be heavily involved, if not the lead architects.

Third, B2B organizations need to be more in sync with customer behaviors as they regard social media. Obviously, certain industries will be more apt to use social media to communicate among themselves, especially technology services, consulting, and professional services (see Table 3). Perhaps certain firms need to develop relationships with influential opinion leaders/bloggers, who can help share information with prospective clients. Customers are also a valuable information source. They can attest to which social media tools were effective and provided value (Leary 2008).

Fourth, as with the CRM phenomenon, it is important to be patient when implementing a social media initiative. When firms originally started spending hundreds of thousands of dollars on CRM technology, they expected immediate bottom-line results. Businesses must learn from the past and realize that implementing a social media approach will take time. Through interaction, organizations can provide vital information to prospective buyers and build credibility within a community. As a result, not only will the social community grow, but the opportunities to generate more sales will as well. However, sellers need to recognize that just because they have made social contact and are ready to sell, prospects might not be ready to buy.

Fifth, it is important to keep in mind that social media are not a replacement for traditional CRM, but an extension of it. Traditional CRM activities, such as accessing customer information, tracking sales activities, and managing sales processes, are the foundation for building and managing the relationship with customers. This may explain why the relationship between social media and managing relationships was not significant, because this stage of the sales process is more a function of CRM.

Social media add a new dimension by recording the interaction and conversation with the client. Organizations should capture the most relevant and valuable information from social media and integrate this communication with the firm’s current CRM workflow. Capturing this type of information, such as what Twitter accounts, blogs, or industry-specific social media tools that customers are following, will enable sales departments to track new leads, opportunities, competitors, or key influencers, and potentially leverage these connections in creating new business.

The importance of cultivating and then maintaining relationships with prospects and customers through the use of today’s technologies cannot be overstated. This contribution to the literature is the recognition of social media as an integral part of a firm’s CRM strategy. As a result, social media has evolved into social CRM. Although in its early stages, our research reveals that the use of social media technology influences early stages of the sales process and, most importantly, relationship sales performance. Although we believed that social media would increase outcome-based sales performance measures, such as revenue and sales quota achievement, the results of this research showed that it did not. However, relationship sales performance was affected, which is congruent with past studies suggesting that technology enhances salespeople’s behaviors focused on relationship building (Hunter and Perreault 2007). When CRM made its debut over a decade ago, many organizations believed that CRM would directly affect revenue growth. These results have yet to materialize. Perhaps social CRM will follow a similar path, and improve the sales process, but not directly link to revenue per se.

LIMITATIONS AND FUTURE RESEARCH

Some limitations are associated with the current study. First, the measure used for social media usage is new and shown to be valid and reliable in predicting sales performance. However, additional scrutiny is warranted to increase the measure’s robustness. Second, future studies could include buyers and marketing professionals to provide additional validity because the present study focused only on the perspectives of people connected to revenue generation. Third, because this study is a brief cross-sectional snapshot in a very fluid and emerging phenomenon, this is merely one data point in understanding the social media evolution.

The findings also suggest various avenues for future research. Scholars may wish to take a deeper look into potential moderating effects such as the size of the firm, level of the respondent within the company, or other context variables. Another area of future research would be to examine the rate of adoption and proficiency in various industries. Certainly, given the importance of revenue generation, longitudinal studies should be a priority for future researchers. Again, merging buyers and sellers into one study is clearly of significant value.

Both industry practitioners and academics should elevate the research on the social media landscape and measure its effectiveness in B2B sales. By making social media an intricate part of the marketing and sales strategy, companies could develop deeper relationships with customers, increase collaboration via two-way conversation, gain incredible customer insight, and as a result, achieve a true 360-degree view of their customer, all while continuing to profit.
REFERENCES


