Social media: Influencing customer satisfaction in B2B sales

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ABSTRACT

Social media have changed how buyers and sellers interact, and increased involvement through social media may yield positive results for sales organizations if salespeople utilize it in facilitating their behaviors. Through the perspective of value creation, we test the mediating effects of salesperson information communication behaviors between social media use and customer satisfaction. Using salesperson-reported data, within a B2B context, we empirically test a model using structural equation modeling. Salesperson's use of social media is found to impact information communication behaviors, which enhance salesperson responsiveness and customer satisfaction. Also, salesperson responsiveness is found to have a positive relationship with customer satisfaction. Findings suggest that social media plays an important role in communicating information to customers, but as an antecedent enhancing salesperson behaviors to increase customer satisfaction rather than a direct factor. This encourages managers to carefully assess goals related to social media use of their sales force.

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1. Introduction

Social media is changing our world. Through the advent of smartphones and social media, accessibility of information is higher than it ever has been before. Customers are frequently asked to "like" companies on Facebook, to "follow" companies on Twitter, or to "connect" via LinkedIn. As a result, customers are becoming better connected to companies, more knowledgeable about product selections, and more powerful in buyer-seller relationships.

In broad terms, incorporating the use of social media in customer interactions is a logical progression for firms to expand communication with their customers (Avlonitis & Panagopoulos, 2010). For instance, trade-media encourage the use of social media (e.g. Wirthman, 2013) for firms, suggesting that social media is important for business as it aids in generating business exposure, increasing traffic, and providing marketplace insight (Stelzner, 2012).

From a sales force perspective, Andzulis, Panagopoulos, and Rapp (2012) assert that social media should be an integral part of a firm's repertoire, as it allows salespeople to engage customers and build social capital that would "encourage customers to interact, engage, and establish relationships with them" (Agnihotri, Kothandaraman, Kashyap, & Singh, 2012, p. 341). For instance, blog posts can be positioned to create discussion or debate as a means of listening to customers. Value propositions can be demonstrated through success stories shared on Facebook.

Networks on LinkedIn can be used to build awareness and gain referrals (Andzulis et al., 2012). In sum, active use of social media can help salespeople in their communication with customers (Agnihotri et al., 2012).

As such, we suggest two key downstream effects of social media within the sales domain. First, social media provides a means to communicate to customers in a manner that may plausibly enable greater salesperson responsiveness. For instance, when consumer complaints are lodged on a social networking site, 58% of consumers want a response; yet only 22% report receiving a response (Right Now Technologies, 2010). Hence, social media may provide one means to enable the salesperson to communicate in a more responsive manner.

Second, social media may have implications on customer satisfaction. In general, with increased interactions and contact with firms, power is shifting from seller to buyer (Prahalad & Ramaswamy, 2004). An increase in buyer-seller collaboration and co-creation of knowledge and value (Greenberg, 2010) has placed buyers on a more equal footing with sellers. As such customers may hold higher expectation for these interactions and engagements, such that firms and customer contact employees must adapt (Hibbert, Winklhofer, & Temerak, 2012) or risk alienating or losing their customer base. For instance, a Harris Interactive report found that 82% of consumers have discontinued dealing with a company as a result of a negative experience (Right Now Technologies, 2010). Hence, social media may provide a means to better enable positive experiences that meet the expectations of the customer base.

Therefore, this paper considers the importance of social media in a business-to-business (B2B) sales context. To build our theoretical foundation, we consider what is already known about social media interactions in a business-to-consumer (B2C) context and expand upon this

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in the B2B realm. Broadly, we ask whether social media positively impacts customer satisfaction within the B2B domain. Many papers call for research in this area (e.g., Trainor, 2012; Agnihotri et al., 2012; Andzulis et al., 2012), but our examination of the literature did not yield research in this area.

To consider the effects of social media on customer satisfaction, we consider the sales relationship more holistically. The work of Agnihotri et al. (2012) provides a framework for salesperson social media use, investigating how social media helps salespeople to maximize customer value. Further, the literature notes that social media encompasses an array of technology; and the use of technology often enables information communication between the buyer and seller within the sales relationship (Agnihotri, Rapp, & Trainor, 2009). Extending this research stream, this article bridges the gap to better understand the links from salespeople's social media as a means to express communication that enables responsiveness and customer satisfaction, as perceived by salespeople.

Hence, our research fulfills a specific research gap. To date, academic research has yet to explore how customer satisfaction is affected by the implementation of social media in B2B sales relationships. Further, we have little understanding of the factors and the pathway which provide a successful route for social media to deliver customer satisfaction. As such, this paper's research objective is to build upon the information communication literature and recent scholarly advances in the area of social media use within industrial selling, to develop and empirically test a model relating salespeople's social media use to customer satisfaction. To foreshadow the results, we find that salespeople using social media technology can enhance customer satisfaction; however, it is essential that salespeople use social media as a means to effectively communicate information. This communication enables greater responsiveness and satisfaction. The findings of this paper provide a springboard for additional research, and the practical implications are many.

2. Theoretical background

2.1. Information communication between buyer and seller

To develop our conceptual model, we align with the literature on information communication within sales and business relationships with the literature on sales technology. The first link in our conceptual model relates information communication with customer satisfaction and information communication to salesperson responsiveness.

The literature surrounding relationship marketing emphasizes the significance of communication between buyer and seller to solidify the relationship within the exchange process (Morgan & Hunt, 1994). Communication, as posited by relational marketing scholars, can be described as the "information shared between exchange partners" (Palmatier, Dant, Grewal, & Evans, 2006, p. 138). Specifically, in the industrial selling context, researchers have highlighted the importance of information communication by the salesperson as a key contributor to customers' positive experiences. For example, Ahearne, Jelinek, and Jones (2007) consider information communication as one of the behaviors that salespeople can use to improve customer satisfaction and trust, even after a purchase has been made. Similarly, Agnihotri et al. (2009) argue that during the sales process, "information communication can provide not only a ground for a winning proposition but also customer satisfaction" (p. 481).

Jones, Brown, Zoltners, and Weitz (2005) acknowledge the heightening expectations of buyers. Buyers have an increasingly higher level of expectations for the salesperson to be alert and sensitive to the customers' needs. Salespeople have a need to focus on providing vital information in a quick and responsive manner, as industrial customers are often compelled to make competent business decisions in a swift manner.

Customers utilize their market relationships (Anderson & Dubinsky, 2004) in a similar manner as salespersons to enable "an effective and efficient means of obtaining information" (Crosby, Evans, & Coles, 1990,

p. 77). The salesperson's level of information communication can provide the customer with a responsive source of knowledge that is often required when purchasing a complex product or solution. Salespeople providing this information may be able to yield greater response timeliness and improve customer satisfaction. Hence, we suggest that a strong basis exists to theoretically link information communication to both customer satisfaction and to responsiveness.

2.2. Information technology

In a parallel stream that considers the influence of technology on information communication, marketing scholars argue that salespeople should be aware of the emerging technology tools that can enable the exchange process to become more efficient and effective (Marshall, Moncrief, Rudd, & Lee, 2012; Rodriguez, Peterson, & Krishnan, 2012). The literature (e.g., Hunter & Perreault, 2007) has supported the use of sales technology within a sales force as it enhances the information communication process.

In terms of technology pertinent to the sales field, extant research acknowledges the evolution of customer relationship management (CRM) and its shift to include social media as a way to increase relationships with the term social CRM. Social CRM incorporates the use of the latest technology (here, social media) as a way of going beyond the traditional role of technology, such that it also raises customer involvement (Trainor, 2012).

For our paper, we utilize the salesperson's use of social media as the precursor to information technology. The use of social media as defined by Agnihotri et al. (2012) is described as "any social interaction-enhancing technology that can be deployed by sales professionals to generate content (e.g., blogs, microblogs, wikis) and develop networks (e.g., social networks, online communities)" (p. 334). Aligning our description with the sales technology literature, in a broad sense, "salesperson social media use" can be defined as a salesperson's utilization and integration of social media technology to perform his or her job (Ahearne, Jelinek, & Rapp, 2005; Rapp, Agnihotri, & Forbes, 2008). In this sense, social media operates as a technology that the sales force can use to build networks and better communicate information.

Social media introduces a 'new avenue' for two-way communication and creates 'possibilities' for more positive interactions between buyers and sellers if used properly. By extending sales interactions in a way that welcomes two-way communication, non-selling activities and relationship components such as prospecting and after-sales follow-ups are encouraged through the use of social media. This makes it easier for potential customers to ask questions or express needs while also making it more natural for salespeople to uncover additional selling opportunities, track customer activity, and communicate success stories (Andzulis et al., 2012).

The literature also highlights the importance of the link between the salesperson's use of social media and information communication. The literature has argued that the use of technology within the sales force "represents only a necessary, but not sufficient, criterion for performance" and "it is important to note that the mediating role of the manner of use is equally vital" (Sundaram, Schwarz, Jones, & Chin, 2007, p. 104). For instance, Hunter and Perreault (2007) posit that sharing market knowledge will mediate the impact of sales technology and performance outcomes. Conclusively, one must be mindful of salesperson behaviors and other goals of social media interactions when examining customer satisfaction.

Information communication is one of the key behaviors that must be maintained in order for customers to be satisfied. Jones et al. (2005) acknowledge this issue of heightening expectations of buyers, growing amounts of information that salespeople have, and the difficulty that salespeople may experience when trying to focus on providing vital information. Salespeople providing this information can extend relationships and improve customer satisfaction. Customers have a high level

of expectation for responses, so we expect response timeliness to be essential when securing customer satisfaction.

3. Model development

In this article we build on the existing work regarding salespeople's social media use, with consideration of information communication, to identify the impact on salesperson-perceived value (i.e., customer satisfaction) and customer-perceived value (i.e, salesperson responsiveness). We focus specifically on (1) the influence of salesperson's social media usage on salesperson information communication, (2) the mediating role of information communication between social media use and customer satisfaction, and (3) the impact that salesperson responsiveness has on customer satisfaction.

The proposed model, shown in Fig. 1, provides a set of hypothesized relationships. Specifically, the model proposes that a salesperson's use of social media will have a positive effect on information communication, which will, in turn, lead to improved customer satisfaction with the salesperson. Also, we propose that information communication will be positively related to responsiveness, which impacts customer satisfaction. In the following sections, hypotheses are developed to portray the suggested relationships among constructs.

3.1. Social media use and information communication

Our first hypothesis posits a relationship between the use of social media and information communication. Agnihotri et al. (2009) demonstrate that using sales technology has a positive effect on information communication ability. Information communication is a critical behavior where "salespeople provide customers with product-relevant information in a timely, clear and concise manner and tailor their presentations to fit customers' needs" (p. 478).

Similarly, Ahearne et al. (2007) define information communication as "regularly relaying product information to the customer in a clear and concise manner," emphasizing that this communication must continue through the entire sales process (p. 605). As the newest type of communication used in sales relationships, social media extends the ability to which salespeople can serve their buyers. Andzulis et al. (2012) provide a comprehensive listing of social media's potential roles in the sales process. To name a few, companies can gather knowledge through field-specific LinkedIn groups, establish credibility by building the brand across networks, present information through videos posted to a YouTube channel, or use Facebook pages to drive clients to sales channels.

The communication between salespeople and their customers remains a vital aspect of buyer-seller relationships (Dwyer, Schurr, & Oh, 1987). Over the years, however, increased use of technology has changed how information is shared. As both sides of sales relationships—buyers and sellers alike—are filled by younger generations, the impact, expectation, and use of social media is becoming much more prominent (Marshall et al., 2012).

One of the most important aspects of the sales process is a salesperson's ability to effectively communicate information. Even if salespeople have the correct and necessary knowledge, customers will not be satisfied with their interaction if the information is not communicated accurately or clearly. With a wide variety of communication options and constant availability, social media offers great possibilities for salespeople to enhance their overall information communication with customers. We expect that, if salespeople integrate the use of social media into their work routine, the convenience of this medium provides an environment where salespeople will value information exchange with their buyers. Given this, we expect that a salesperson's use of social media will be beneficial to communications.

Hypothesis 1. A salesperson's use of social media will positively influence information communication.

3.2 Customer satisfaction

Despite the acceptance of social media as a business topic and the long history of research on customer satisfaction, a relationship linking salesperson social media use and customer satisfaction has not yet been empirically tested in the literature. Our model hypothesizes that
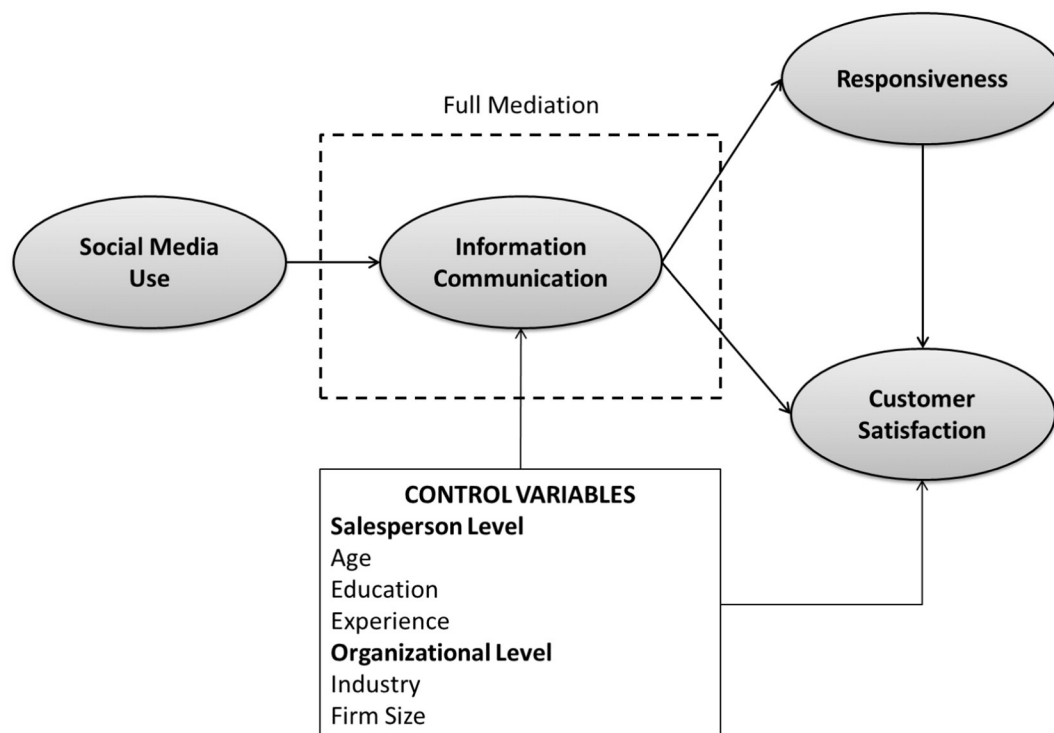

Fig. 1. Conceptual model.

information communication plays a linking role between these two constructs. Customer satisfaction is essential for consideration because it refers to the "final satisfaction" for a customer (Grewal & Sharma, 1991, p. 14) and is being influenced throughout the entire sales process, from pre-purchase product expectations to post-purchase resolution of complaints. At each of these stages, customer satisfaction depends on the confirmation of expectations (Eggart & Ulaga, 2002). Since social media is continuously available to link buyers and sellers, the interactions occurring through this technology are likely to influence a salesperson's communication with customers. Thus, it is imperative that precise information is relayed through the most appropriate mechanism. To accomplish this, salespeople must be able to communicate new information and to correctly judge what information will be most useful to the customer.

The role of information communication between salesperson expertise and customer satisfaction has previously been established in the literature by Agnihotri et al. (2009). Their study considers salesperson knowledge and use of technology, and posits the rationale that, given a high amount of salesperson expertise and technology utilization, customer satisfaction depends on information communication. Buyers rely on salespeople to communicate information that is both accurate and relevant, which then becomes the primary basis for their satisfaction. While Agnihotri et al. (2009) have already established that salespeople's information communication has a positive effect on customer satisfaction, we aim to replicate this proposition given its role between social media use and customer satisfaction in our model.

Hypothesis 2. A salesperson's information communication will positively influence customers' satisfaction with the salesperson.

3.3 Salesperson responsiveness

Ahearne et al. (2007) link responsiveness with reliability, by identifying salespeople who are "promptly returning phone calls, following up on commitments, fulfilling customer requests, and remaining available when needed" (p. 605). However, for salespeople to get the opportunities where customers are asking questions and supplying requests, information communication practices need to be in place. Marketing scholars argue that although information sharing is critical to the success of marketing channels' relationships, "it is not an end in itself"; instead, "it provides a tool to be used to deliver enhanced value to customers" (Stank, Daugherty, & Ellinger, 1996, p. 43). Moreover, Stank et al. (1996) posit that information communication will not only have a positive impact on a service provider's performance as perceived by the customer, but it will also have a positive influence on a service provider's responsiveness.

With the availability of social media, sales organizations are able to use "pull" strategies (Rodriguez et al., 2012) such that information is often requested by customers and prospects through online conversations. Social media creates a new way for customers to connect with the sales force and allows for conversations with useful content. Use of social media for transaction-specific information communication paves the way for customers to be more in-touch with their salespeople. Salespeople who perform information communication behaviors will feel vested and will act efficiently in responding to customers' requests. With increased communication comes a sense of connection where buyers feel encouraged to ask questions or make special requests. When they do, they expect that salespeople will provide prompt support.

Hypothesis 3. A salesperson's information communication will positively influence responsiveness.

Customers' happiness often results from interactions with their salespeople. If the salesperson's behaviors are aligned with the buyer's expectations, the buyer is likely to be more satisfied. For instance, a responsive salesperson provides swift replies and answers to customers' needs. The literature notes that resolving customer issues, reacting to emerging needs, and bringing to completion commitments enable greater customer satisfaction (Sharma, 1997). Customers expect responses from their salespeople when contact is initiated. If buyers feel that a salesperson is too busy for them, they may consider other options.

The impact of responsiveness on customer satisfaction is consistently found in a range of sales contexts. For instance, the study of a retail (B2C) store environment by Naylor and Frank (2000) found that consumers have much higher perceptions of salespeople when they are more responsive. Similarly, responsiveness is considered a critical element of service performance and leads to satisfaction (Amyx & Bhuian, 2009); also, responsiveness serves as a critical salesperson service behaviors that impact satisfaction (Ahearne et al., 2007). In summary, a salesperson's responsiveness appears to be a crucial driver of customer satisfaction. As such, we purport a positive relationship between responsiveness and customer satisfaction.

Hypothesis 4. A salesperson's responsiveness to customers will positively influence customers' satisfaction with the salesperson.

4 Methods

4.1 Data sample

The sample was drawn from a large group of sales professionals involved in B2B industrial selling. We drew a list of companies and salespeople connected to a reputable sales center in a mid-size state university. Apart from undergraduate sales education, this sales center offers coaching and training programs for industrial sales professionals and, therefore, maintains a database of salespeople. An e-mail containing a link to the survey was sent to 1238 sales professionals, of whom 149 responded (12% response rate). Of the 149 responses, 111 responses were complete and usable. Sales professionals were made aware that the research was being conducted for scholarly purposes. The survey respondents represented a large range of diverse companies and industries (please see Table 1 for sample characteristics).

4.2 Measures

For the current study, we utilized previously validated measures from the literature. All scales used a five-point Likert format, where the anchor of 1 indicates "strongly disagree" and 5 indicates "strongly agree," and were adapted from the literature (see Appendix A).

Social media use was self-assessed by each sales representative. We acknowledge that responding salespeople will have varied approaches to social media, so we allow them to respond relative to their own, self-interpreted use of social media. Respondents were told to consider the use of social media as their utilization of commonly available social media platforms (e.g., Facebook, Twitter, LinkedIn, YouTube, and Chatter). Each sales professional's use of social media on the job was measured based on a three-item scale (e.g., *I am using all capabilities of social media in the best fashion to help me on the job*). Given that the sales literature does not offer any valid scales for social media use, scale items were adapted in part from the technology usage scale of Agnihotri et al. (2009) and demonstrated high reliability ($\alpha = .86$).

Information communication was operationalized as communication of applicable and appropriate information (e.g., *I always present information to the customer in a clear and concise manner*). A salesperson's communication of information about the product was assessed using a three-item scale ($\alpha = .75$) from Ahearne, Gruen, and Jarvis (1999). Customer satisfaction was assessed using a three-item scale (e.g., *Overall, I feel that my customers are satisfied with my performance*) with strong reliability ($\alpha = .85$) that captured salespeople's perception of how pleased their customers are (James, Demaree, & Wolf, 1984). Responsiveness was measured by a three-item scale (e.g., *I am never too busy*

Table 1
Sample characteristics.

B2B industrial sector representation (frequency)	
Service	53
Technology	14
Financial	13
Basic materials	10
Retail	8
Healthcare	5
Consumer goods	4
Manufacturing	3
Wholesale	1
Respondent demographics (percentages)	
Age range	
20–25 years	7.2%
26–30 years	10.8
31–35 years	13.5
36–40 years	11.7
41–45 years	9.0
46–50 years	9.8
51 years and over	27.9
Experience	
1 to 5 years	17.1%
6 to 10 years	16.2
11 to 15 years	18.0
16 to 20 years	16.2
21 to 25 years	11.7
26 and above	20.7
Highest education level attained	
High school graduate	2.7%
Associate degree	5.4
Bachelor degree	53.2
Master degree	34.2
Doctoral degree	4.5
Total number of respondents	111

to respond to special requests) adapted from Ahearne et al. (2007) (α = .72).

To reduce the potential for other variables to impact information communication and customer satisfaction, we controlled for five variables pertaining to the individual, such as age, education, and sales experience; and two variables pertaining to the organization, including firm size and industry.[1] Control variables have been introduced into the model to reduce variability in the model's dependent measures. As a result, the sample becomes more homogeneous, which leads to greater precision in estimation. Our decision to include these control variables within the framework of performance is based on the previous sales literature (Churchill, Ford, Hartley, & Walker, 1985; Dwyer, Orlando, & Shepherd, 1998). Additionally, researchers have also argued the impact of such personal factors on salesperson behavioral outcomes (Yilmaz & Hunt, 2001). Therefore, we also control the effects of these variables on information communication behaviors.

5 Analysis and results

After compiling the data, nonresponse bias was tested using a *t*-test to examine differences between early and late respondents on all of the measures. Respondents who responded after the initial message were termed 'early,' while those who responded after receiving a second message were termed 'late' respondents (Green, Inman, Brown, & Willis, 2005). The results of the tests are not statistically significant, thereby suggesting that nonresponse bias is not an issue with our data (Armstrong & Overton, 1977). Multiple preliminary tests were conducted to ensure that the constructs had acceptable psychometric properties. An exploratory factor analysis suggested that individual items representing the latent constructs were loaded appropriately and no cross-loadings were present. The reliability statistic, Cronbach's alpha (α), of each latent variable

[1] We thank an anonymous reviewer for this recommendation.

and correlations among all variables in the model were examined. Model fit for the measurement model was good (χ^2 = 63.724 (48), $p < 0.1$; CFI = 0.98; NNFI = .97; RMSEA = 0.05). Results suggest the significance of all factor loadings ($p < 0.05$) and the acceptance of composite reliabilities (greater than the 0.60 benchmark) (Bagozzi & Yi, 1988; Nunnally, 1978).

We also calculated the average variance extracted (AVE). All of the constructs, with the exception of the information communication construct, met the 0.50 level recommended for all scales (Bagozzi & Yi, 1988). However, considering the information communication construct is an established construct in the literature (Agnihotri et al., 2009), our concerns were mitigated. Following the Fornell and Larcker (1981) approach, the AVE from each construct pair was compared with their squared factor inter-correlations. The AVE for each of the related factors was at least two times the squared factor-correlation, providing further evidence of discriminant validity. The descriptive statistics and correlations among the latent constructs are reported in Table 2 along with construct reliabilities.

Since the data was collected from one source only—salespeople—we follow procedures to address the concerns of common method bias. Since more than 90% of respondents received an undergraduate or higher degree, our approach is aligned with literature promoting the utilization of highly educated respondents in order to mitigate common method variance (CMV) risks (Rindfleisch, Malter, Ganesan, & Moorman, 2008). We also included a common method factor into the structural equation model. In this approach, we incorporated a factor in which all of the indicators within the model loaded on the factor as well as their respective variable.

To examine the hypothesized relationships, we employed Structural Equation Modeling (SEM) using EQS. Researchers support the use of SEM over hierarchical regression technique, considering its usefulness in avoiding measurement error complications and detecting misspecifications in a hypothesized model (Raykov, 2000). The full structural model was derived from proposed hypotheses. Structural model fit was within acceptable limits (χ^2 = 142.63 (99), $p < 0.01$; CFI = 0.99; RMSEA = 0.06). We found support for all of the hypotheses. The effect of the salesperson's social media use (H1: $\beta = 0.26$, $p < 0.05$) demonstrated significant positive relationships with information communication. The linear relationship between information communication and responsiveness was also significant (H2: $\beta = 0.50$, $p < 0.05$). The links from information communication to customer satisfaction was supported (H3: $\beta = 0.57$, $p < 0.05$), as well as the relationship between responsiveness and satisfaction (H4: $\beta = 0.34$, $p < 0.05$) (Table 3).

5.1 Mediation tests

Our goal was also to understand the mediating role of information communication for the social media-responsiveness and the social media-customer satisfaction relationships. We utilized the method illustrated in Crossley, Bennett, Jex, and Burnfield (2007). As such, we conducted two additional analyses (Table 4). For each of the two additional models, we incorporated a single path (e.g. a direct path from social media to responsiveness, and a direct path from social media to customer satisfaction). Then, we compared each new model with our base model. The base model included the structural model, including that of their latent factors, control variables and common method factor. The results did not reflect that either additional path produced greater model fit, nor was the direct path coefficient between social media and the outcome significant. Hence, the findings seemingly suggest full mediation.

6 Discussion

The findings of the present article begin to address the call for empirical sales research focusing on social media. The proposed model provides statistical support using salesperson-reported data to show that

Table 2
Descriptive statistics and intercorrelations.

	Mean	SD	Cronbach's alpha	Composite reliability	AVE	1	2	3	4
1. Social media use	2.89	0.99	0.89	0.86	0.67	–			
2. Info. communication	4.29	0.54	0.65	0.71	0.45	.22*	–		
3. Responsiveness	4.35	0.60	0.74	0.75	0.50	.12	.35**	–	
4. Customer satisfaction	4.48	0.51	0.85	0.86	0.67	.11	.54**	.51**	–

* Significant at the 0.05 level (2-tailed).
** Significant at the 0.01 level (2-tailed).

the effects of social media use by salespeople influence customer satisfaction, to the extent that salespeople adequately communicate information that is important to the customer. Customers value this extra medium through which they can contact salespeople. The data also supports the positive relationship between responsiveness and customer satisfaction suggesting that customers appreciate timely responses from salespeople. In the remaining discussion, we will outline the theoretical as well as managerial implications of the findings. In doing so, we will further consider the practical role of salesperson social media use as a positive influencer in a B2B sales context.

6.1 Theoretical implications

The current study makes a number of contributions to the industrial sales literature and offers theoretical implications. First, findings suggest that a salesperson's use of social media enhances the salesperson's overall information communication (i.e., new and useful information, objective comparisons, and information that is presented in a clear and concise manner). The value of information communication is important in explaining the significance of social media. Our research further validates that information communication serves as a critical salesperson behavior in business markets (Reid, Pullins, & Plank, 2002) and reaffirms that it serves as a means to derive the investment made in social media. In sum, our research reflects the value of information communication for the successful utilization of social media.

In a related manner, the results demonstrate the fully mediating effect of information communication in the relationship between social media use and customer satisfaction. Thus, the mere use of social media does not alone ensure the salesperson a means of enhancing customer satisfaction. To attain the value of social media, it requires that the salesperson use social media to relay critical information and knowledge that is important to the customer. As such, our research responds

to calls by researchers to empirically examine the use of social media within B2B contexts (Rapp, Beitelspacher, Grewal, & Hughes, 2013).

We also find that a salesperson's use of social media positively impacts information communication, which in turn encourages salesperson responsiveness. While conversations over social media may not replace in-person interactions, bringing social media into a buyer-seller relationship does appear to be beneficial. Our findings cement recent theoretical assessments offered by researchers who argue that social media encourages awareness and conversation while indirectly adding a sense of immediacy to conversations and requests in a "pull" environment (Rodriguez et al., 2012).

Finally, our research responds to calls regarding the need for empirical research to examine the role of social media within the industrial selling process. Most of the existing research in this domain has been conceptual in nature. For example, Andzulis et al. (2012) offered the theoretical arguments in favor of social media's role in the sales process and urged fellow scholars to offer empirical evidences. Other conceptual frameworks relating salesperson social media use to value creation (Agnihotri et al., 2012) or qualitative work (Marshall et al., 2012) uncovering relevant themes related to social media technology and sales enhances our understanding of social media use but lack empirical support. Notably, just a handful of empirical pieces have found publication in this domain and thus, the current study offers critical implications by offering support, in part, to the theoretical propositions posited by the researchers.

6.2 Managerial implications

The majority of industrial buyers across the globe considers their sales contact as a business partner and anticipates quality advice about products or services from their sales representative (Thomas, Mitchell, & Del Rossa, 2007). Additionally, a sales contact is perceived as the second best information resource (Internet tops the chart) in

Table 3
Results of hypothesized model.

Hypothesis	Independent variable	Dependent variable	Standardized coefficient	t-Value	Finding
H1	Social media	Information communication	0.257	2.538*	Supported
H2	Information communication	Responsiveness	0.493	3.610*	Supported
H3	Information communication	Customer satisfaction	0.570	5.008*	Supported
H4	Responsiveness	Customer satisfaction	0.343	3.001*	Supported

Control variables

	Customer satisfaction	Information communication
Age	−.013 (−.179)	−.130 (−1.392)
Education	.081 (1.092)	−.214 (−2.238)
Experience	.082 (1.087)	.259 (2.752)
Industry	.007 (.098)	−.040 (−.425)
Firm Size	−.079 (−1.086)	−.099 (−1.058)

Standardized coefficients with t-values in parentheses

Overall model fit statistics

χ^2	143.634**
NNFI	0.98
df	99
CFI	0.99
RMSEA	.06 (.04, .08)

Note: Level of significance: *$p < .05$; ** $p < .01$.

Table 4
Tests of additional models.

Model	χ^2	df	$\Delta\chi^2(df)$
Base model with common method factor	143.634	99	–
Base model + social media ➔ responsiveness	142.663	98	.971 (1) *n.s*
Base model + social media ➔ customer satisfaction	141.677	98	1.957 (1) *n.s.*

the organizational decision making process, with a caveat that one third of industrial buyers report "lack of support" from their salespeople (Thomas et al., 2007). With such issues standing at large, the current research, offers some critical implications for sales managers.

Recent research (e.g., Agnihotri et al., 2012) provides practical advice that in order for a social media strategy to be successful, clear goals should be set to guide the processes of information sharing, gathering information about competitors, and monitoring performance. Given the findings of this study, it is apparent that this advice must be followed to maximize customer satisfaction through the use of social media. Management should define the goal information to be communicated through social media and expectations of how salespeople should interact across social media. From the beginning of social media planning, firms should also consider how they want their customers to interact with the sales force.

While, to the best of our knowledge, no academic research has yet established what an adequate timeframe for salesperson responses should be in the B2B context, a 2010 study by Right Now Technologies measured consumer's expectations for response timeliness in B2C social media communications. They found that, of the 58% of consumers who expect a company to respond to their post on a social networking site (specifically, Facebook or Twitter), 42% expect a response within one day; 39% expect a response within one week; 7% expect a response within 1 h; and 2% expect a response within 1 min.

The present article's findings that using social media can indirectly impact the responsiveness, and responsiveness is positively related to customer satisfaction, indicate that customers at the B2B level will feel similarly to those at the B2C level. Essentially salespeople need to be available, and available often, to their customers. But, since a salesperson's social media use is not directly influential on customer satisfaction, firms need to evaluate whether they want to expend the resources, committing their sales force's time and effort to use social media as part of their job and, if so, how much. The 2012 Social Media Marketing Industry Report found that "the majority of marketers (59%) are using social media for 6 h or more each week" (Stelzner, 2012, p. 5).

As these new social media duties will take away from time spent on other work objectives, potential timeframes should be given to assist salespeople in delegating adequate time using social media. Similarly, guidelines should be provided regarding how information should be communicated. Within the firm, all employees should have a shared understanding of what information and types of interactions are appropriate for social media use—keeping in mind that content posted to social media is generally publicly available—and what information should be addressed through a different channel.

In order to assess the effectiveness of the sales force's social media use, as well as to not waste resources, firms need to develop a way to measure the outcomes of social media use so they can assure that their goals are being met and that the use of social media is advantageous. The findings of this article indicate that social media use will indirectly impact customer satisfaction, as the link will be mediated by information communication. Therefore, the firm must assess the cost of this increased satisfaction, since the benefit is derived from the salesperson's behaviors of information communication and responsiveness rather than directly from social media.

Essentially, managers must be sure to lay clear expectations for a social media presence. While we did not find that using social media directly increases a salesperson's customer satisfaction, it is possible that customers have some expectation for social media to be a utilized communication channel. This expectation may become even greater in the future, as young buyers and sellers age and carry with them an expectation for social media use. Further research is absolutely essential in this area, as this paper is the first to empirically suggest that the expectation for a firm's social presence in B2B relationships depends on the behavioral mechanisms employed by salespeople; in fact, it is possible that social media may not be very different from other methods of communication, and each may be only as influential as the behaviors of the salesperson using it.

6.3 Limitations and future research

While we feel comfortable that the findings reported here are valid, there are several limitations to our study that may affect reliability of the results. First, all measures were self-reported by the salesperson. While a dyadic sample would be preferable, sample accessibility was constrained to only sellers. Given the method of self-reported measures in this study, each salesperson evaluated his or her customers' satisfaction at an overall level, which we recognize is not the most ideal measure of customer satisfaction and we accept this as a limitation of this study. However, scholars argue that "in general contact employees are good sources of information on customer attitudes (Bitner, Booms, & Mohr, 1994) and a perceptual measure can be used when an accurate objective measure is not available (Dess & Robinson, 1984)" (Sleep, Bharadwaj, & Lam, 2015, p. 15). Also, the scale measuring responsiveness self-assessed how responsive the salespeople are to their customers in general—not with respect to only responses through social media.

The sample used in the current study is comprised of salespeople, operating within a B2B context and working for different companies. While this enhances the generalizability of our results, it does not inherently control for other factors, as different companies possess varied work cultures and control strategies. Future studies could incorporate salespeople employed within a single firm to control for such variables. Also, our results provide only a snapshot, due to the cross-sectional approach of data collection. Future studies may utilize a longitudinal approach in data collection to offer a better understanding of social media use and its impact.

This study lays groundwork for countless areas of additional research. This paper is the first empirical research to consider behaviors on the relationship between salesperson social media use and customer satisfaction. Building on this, a full framework should be established to further consider the roles of various salesperson behaviors when salesperson-customer shared technologies, such as social media, are used. An empirical study determining whether or not the mere use of social media directly makes a significant difference in various aspects of B2B buyer-seller relationships would be interesting.

Additionally, different amounts and uses of social media should be considered. Because not all customers will engage in social media (for example, in their 2012 article, Marshall et al. acknowledges that there is a generational gap where younger buyers and sellers are more accepting of virtual relationships), firms must be careful to use social media efficiently. Implementing social media use in a sales force must be addressed in an effective way to maximize the capabilities of social media without excluding customers who do not use social media from relevant information. Future studies could identify ways to maximize social media usage and assess which activities are best under which social medium. Moreover, it would be interesting to examine other benefits of social media use beyond salesperson-customer interaction such as networking, prospecting, and lead generation.

Another consideration of interest would be to investigate social media efficacy or similar variables. This may help to refine the relationship between salesperson social media use and the variables of responsiveness and information communication. Social media efficacy may help to improve the understanding of the influence of social media

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[2] We thank an anonymous reviewer for this insight.

use on behaviors. In the same line of argument, future studies should also explore the dark side of social media use.[2] For example, the excessive number of requests that a salesperson can receive through social media can reduce her or his responsiveness, as he or she has to take care of too many questions. In addition, social media tools allow for new forms of interaction between a salesperson and customers, therefore, customers' comments that have to be addressed can further increase the burden for the salesperson. Future studies should develop models that address such consequences of social media use.

While possibly the most challenging suggestion, development of a quantitative model would be beneficial to empirically assess costs and benefits of all possible actions on multiple forms of social media. For example, the measure could assign a quantitative benefit value to leads gained through social networking, as well as the costs (e.g., financial, time, and opportunity) to attain such leads. We recognize that measures of this type are filled with uncertainty and difficult to create. However, if such a comprehensive model were created, it would provide management a way to monitor and evaluate each salesperson's use of social media, as well as a way for sales management to make better-informed decisions about how the sales force could best use social media on the job.

The area of social media use in B2B buyer-seller relationships is still relatively new and, in academic literature, empirical research is extremely limited (if not non-existent). Given how frequent the mention of social media is in the popular press (Wirthman, 2013), and the extent to which it is used in many people's daily lives, this paper's finding that social media use does significantly influence salesperson information sharing behaviors may further escalate such discussions in the sales industry. As it is evident that social media will not disappear anytime soon, researchers must carefully examine the role of social media and pinpoint its influence such that managers can make sound, knowledgeable decisions regarding the presence of social media within their firms.

Appendix A

Constructs/items	Standardized loading
Information communication (Adapted from Ahearne et al., 1999)	
• I frequently provide customers with new and useful information	.82
• I always present information to the customer in a clear and concise manner	.60
• When selling to a customer, I make objective comparisons between products	.42
Customer satisfaction (Adapted from James et al., 1984)	
• Overall, I feel that my customers are satisfied with my performance	.80
• My clients feel they have an extremely effective working relationship with me	.79
• Overall, my clients feel our relationship is productive	.85
Responsiveness (Adapted from Ahearne et al., 2007)	
• I am never too busy to respond to special requests	.68
• I am always able to be reached if a customer needs something important	.76
• I always return calls promptly, if I was unavailable	.66
Social media use (Adapted from Agnihotri et al., 2009)	
• I am using social media to its fullest potential for supporting my own work	.95
• I am using all capabilities of social media in the best fashion to help me on the job	.92
• My use of social media is pretty much integrated as part of my normal work routine	.69

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