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Examining the role of sales-based CRM technology and social media use on post-sale service behaviors in India

Raj Agnihotri^{a,*}, Kevin J. Trainor^b, Omar S. Itani^c, Michael Rodriguez^d^a Department of Marketing, The University of Texas at Arlington, 701 West Street, Arlington, TX 76019, United States^b The W.A. Franke College of Business, Northern Arizona University, P.O. Box 15066, Flagstaff, AZ 86011-5066, United States^c Hospitality Management & Marketing Department, Adnan Kassab School of Business, Lebanese American University, Beirut, Lebanon^d Skema Business School, North Carolina State University Campus, 920 Main Campus Drive, Raleigh, NC 27614, United States

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ABSTRACT

Despite the growing recognition of the critical role of post-sale service on the salesperson-customer relationship, few studies have explored how salesperson service behaviors (SSB) are enhanced through tools such as sales-based customer relationship management (CRM) technology and social media. Using dyadic salesperson-customer data within a business-to-business context, this study analyzes the direct effects of sales-based CRM technology on the behaviors of diligence, information communication, inducements, empathy and sportsmanship. Additionally, the study examines the interactive effects of sales-based CRM technology and social media on these behaviors. The results indicate that sales-based CRM technology has a positive influence on SSBs and that salespeople using CRM technology in conjunction with social media are more likely to exhibit higher levels of SSBs than their counterparts with low social media technology use.

1. Introduction

The strategic importance of the sales force and the role it plays in driving revenue generation has been well documented (Cron, Baldauf, Leigh, & Grossenbacher, 2014; Palmatier, Scheer, & Steenkamp, 2007), however more research that explores the role of the salesperson in the value creation process, especially *after* closing the sale, is needed (Terho, Haas, Eggert, & Ulaga, 2012). Moreover, the sales technology literature has primarily focused on the effect of antecedents on sales technology use (Hunter & Perreault, 2007; Jelinek, Ahearne, Mathieu, & Schillewaert, 2006) and how technology adoption helps a salesperson secure the sale and enhance performance (Rodriguez, Peterson, & Krishnan, 2012). Although scholars argue the long-term importance of sales technology (Rapp, Agnihotri, & Forbes, 2008; Tanner, Ahearne, Leigh, Mason, & Moncrief, 2005), to the best of our knowledge, no research study has examined the impact of technology in the context of salesperson service behaviors (SSBs).

The goal of this research, therefore, is to address this gap in the literature by doing two things. First, we investigate the effect of sales-based CRM technology on SSBs. The SSB perspective (as proposed by Ahearne, Jelinek, & Jones, 2007) and the extant sales literature on CRM technology provide the foundation for building and empirically testing a model relating CRM technology to SSBs. It is important to mention

that “service behaviors” in the current context do not refer to behaviors a salesperson practices to close initial sales. Instead, it refers to behaviors salespeople employ after the point of the initial sale (Ahearne et al., 2007).

Second, we expand the domain of sales technology by including social media to the extent that it will interact with sales-based CRM technology to positively influence SSBs. Our approach is aligned with the sales literature that broadly defines sales technology as the set of technology tools that can be used by salespeople to enhance efficiency and effectiveness when dealing with customers (Jelinek, 2013). Notably, different types of sales technology tools have different applications and effects (Agnihotri, Kothandaraman, Kashyap, & Singh, 2012; Hunter & Perreault, 2007; Rapp et al., 2008). The use of social media as an added technological tool in the sales technology toolbox is still a novel concept, and sales organizations often do not have a firm-wide social media sales strategy (Agnihotri, Dingus, Hu, & Krush, 2016; Gupta, Armstrong, & Clayton, 2010). Sales technology researchers suggest that social media technologies are not a replacement for existing sales technology but are instead complementary to existing sales technology and “augment the value of each interaction with the customer, existing or future” (Andzulis, Panagopoulos, & Rapp, 2012, p. 308). Building from this, we examine the moderating effects of social media in our model.

* Corresponding author.

E-mail addresses: rajshekhar.agnihotri@uta.edu (R. Agnihotri), kevin.trainor@nau.edu (K.J. Trainor), omar.itani@lau.edu (O.S. Itani), michael.rodriguez4@skema.edu (M. Rodriguez).<http://dx.doi.org/10.1016/j.jbusres.2017.08.021>Received 2 June 2016; Received in revised form 19 August 2017; Accepted 22 August 2017
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We accomplish these goals by examining data from 162 salesperson-customer dyads stemming from business-to-business (B2B) sales organizations operating in India to examine a model that links sales-based CRM technology to SSBs. Our reason for using these dyadic data was to minimize biases often found in studies that use only salesperson responses to measure salespersons' perceptions of their own constructs and their customers' perceptions (Román & Iacobucci, 2010).

Our paper is organized as follows. In the next section, we present our study's theoretical foundation and outline the conceptual model that investigates the direct effects of sales-based CRM technology on sales service behaviors as well as the interactive effects of CRM technology and social media on these behaviors. Then, we communicate the logic regarding the hypothesized relationships and test our conceptual model using dyadic data. Our paper concludes with an overview of results and associated implications for theory and practice.

2. Theoretical background and conceptual model

We garner support for our CRM technology-service behaviors link from the logic presented by the Task-Technology Fit (TTF) theory proposed by Goodhue and Thompson (1995). In this viewpoint, a positive link between technology and performance emerges when the technology utilized is a good fit with the tasks it supports (Goodhue & Thompson, 1995). Tasks are considered activities performed by users to achieve targeted outcomes. Sales technologies are tools that help them perform those tasks. Thus, applications of technology can yield results depending on the characteristics of the assigned task.

In the marketing literature, the TTF perspective has been used to build sales performance models (Ahearne et al., 2007; Rapp et al., 2008). This research stream proposes that the use of sales technology tools aids in the performance of several operational (e.g., securing product expertise, generating automated reports) and strategic (e.g., preparing sales presentations based on customers' needs) activities. It is important to highlight, however, that these sales technology models focus primarily on sales performance as the ultimate criterion of interest and do not capture or explore the 'fit' between technology tools and activities regarding servicing the sale (i.e., enhancing and facilitating the sale and use of products or services). This is somewhat surprising, since service activities in the post-sale environment are considered essential for engaging customers and building long-term partnerships (Manning, Ahearne, & Reece, 2011). Moreover, the use of technology is important, since it can support efforts to provide post-sale service and can help salespeople manage the multiple time demands placed on them.

Extending this conversation, we argue that sales-based CRM technology will yield better SSB outcomes when integrated with social media use. This is especially true in the current context, where the initial sale has been completed and salespeople need to rely on CRM technology to remain in touch with customers to nurture relationships. The effect of social media in sales has been highlighted by recent studies (e.g., Trainor, Andzulis, Rapp, & Agnihotri, 2014), and social media tools are the most in-demand in terms of specific CRM functionalities (Capterra, 2015).

The work of Agnihotri et al. (2012) provides a framework for examining salesperson social media use in value creation, outlining how social media helps salespeople maximize their engagement with customers even when the sale is done. This builds on the SSB framework, which points out that a salesperson's effective social media use can occur throughout the duration of the sales process, not just a single, solitary step before the sale. It is important that salespeople perceive their use of social media as yielding some value when integrated into the current systematic approach (Agnihotri et al., 2012); hence, a salesperson's use of social media should play a moderating role in the relationship between CRM technology and service behaviors.

The salesperson service behavior perspective, as developed by

Ahearne et al. (2007), distinguishes ways salespeople can improve customer satisfaction and trust, even after a purchase has been made. This theoretical perspective is developed around customer satisfaction and trust building and emphasizes the importance of buyer-seller relationships *beyond* making the sale. Ahearne and his colleagues (2007) identify several salesperson service behaviors—diligence, information communication, inducements, empathy, and sportsmanship—that improve relationship quality.

For this study, we examine both traditional sales-based CRM technology, defined as tools “specifically designed to help the sales organization meet its objectives in managing customer relationships” (Hunter & Perreault, 2007, p. 17), and social media technology. In parallel with the increased interest in customer service, the role of social media technology has recently received attention within the sales literature. Agnihotri et al. (2012) describe social media 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 this definition with the sales technology literature, Agnihotri et al. (2016) refer to salesperson social media use as a salesperson's utilization and integration of social media technology to perform his or her job.

We subscribe to the view that social media technologies should be considered an extension of an organization's CRM rather than a standalone technology used in isolation (Trainor et al., 2014). Marketing scholars and practitioners have labeled this extension “social CRM” and define it as the “integration of customer-facing activities, including processes, systems, and technologies, with emergent social media applications to engage customers in collaborative conversations and enhance customer relationships” (Trainor et al., 2014). This integration, therefore, is represented as an interactive effect on the relationships between CRM and SSBs in our model.

Building on the TTF and SSB frameworks, we present the hypothesized model in Fig. 1 that we use to test our premise that sales technologies, in the form of CRM and social media, can facilitate salesperson behaviors.

3. Hypothesis development

3.1. Relationship between sales-based CRM technology and SSBs

3.1.1. Diligence

Defined as a composite of both responsiveness and reliability, diligence is an important SSB in the customer engagement process (Ahearne et al., 2007). To be successful in engaging customers, sales professionals must react to their needs in order to be considered dependable and accurate. Diligent salespeople will promptly return phone calls, follow up on communications, fulfill customers' needs and requests consistently and ensure that they are reachable at any time needed. Diligence is crucial in the customer-salesperson relationship, since salespeople are required not just to respond to customers but to do so in a reliable and timely way to increase the satisfaction and loyalty of customers (Amyx & Bhuian, 2009; Morgan & Hunt, 1994).

Sales-based CRM technology is designed to help sales professionals manage customer relationships by improving communication, learning more about customer needs, and creating customized solutions for the customer (Ahearne, Rapp, Mariadoss, & Ganesan, 2012; Tanner et al., 2005). For example, a sales professional can use an opportunity management system¹ to track a customer's inbound calls to receive support and therefore help resolve an issue prior to seeking other opportunities within the account.

Sales-based CRM technology enables salespeople to promptly and

¹ A listing and elaboration of different components of sales force automation can be found in Jelinek (2013).

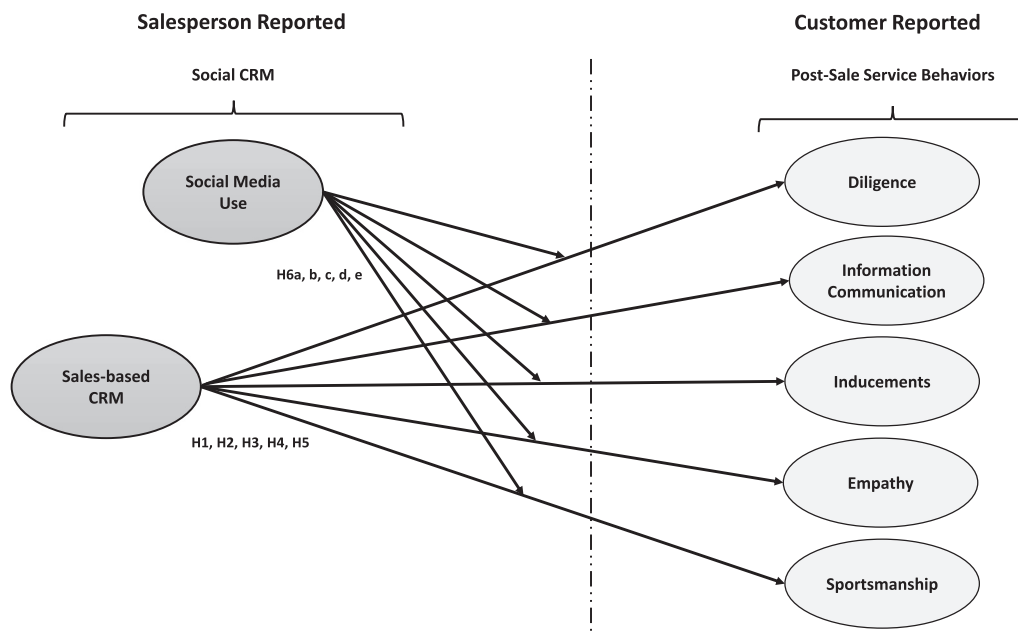


Fig. 1. Hypothesized model.

knowledgeably respond to buyers, even at times when unpredictable situations occur away from the buyer's sight (Ahearne, Jones, Rapp, & Mathieu, 2008; Tanner et al., 2005). In general, technology can facilitate different job tasks, such as tracking customers, communication, minimizing errors, augmenting core services and customizing offerings. This allows for faster and more-consistent and cost effective completion of the different tasks (Berry, 1995). Zeithaml, Berry, and Parasuraman (1988) posit that the possible consequences of using information technologies at work are increasing responsiveness and reliability, two primary components of service quality. CRM technology gives salespeople the ability to track and manage all interactions with the customer and react accordingly (Jelinek, 2013). Therefore, we propose:

H₁. Sales-based CRM technology has a positive effect on Diligence.

3.1.2. Information communication

A vital role of salespeople is to provide adequate communication with buyers (Dwyer, Schurr, & Oh, 1987). Moreover, buyers in B2B markets consider salespeople as the major source of information (Deeter-Schmelz & Norman Kennedy, 2004). Information communication is defined as “regularly relaying product information to the customer in a clear and concise manner” (Ahearne et al., 2007, p. 605). Information can include updates on product details, key differentiators, pricing, or specific customized solutions that meet the needs of the client. The marketing encyclopedia function within CRM systems, which provides detailed information on an organization's products, can “arm reps with key information that allows them to present convincing arguments to potential customers” (Jelinek, 2013, p. 638). Providing this type of marketing information in real time to customers can lead to upselling and cross-selling opportunities (Jelinek, 2013).

Within the information systems literature, information technologies such as CRM are shown to enhance the richness, mobility, and accessibility of information (Fulk & DeSanctis, 1995; Jarvenpaa & Ives, 1994). Within a sales context, sales-based CRM technology has enabled salespeople to more efficiently collect and organize critical information and disseminate it to customers (Rodriguez & Honeycutt, 2011). Hunter and Perreault (2007) found that CRM technology is positively related to relationship-forging tasks, such as sharing market knowledge and proposing integrative solutions, which are necessary for building better relationships with buyers. Agnihotri, Rapp, and Trainor (2009) also

found that the use of sales technology enhances salespeople's ability to communicate information. Utilizing sales-based CRM technology enables sales professionals to more efficiently communicate with their customers. Therefore,

H₂. Sales-based CRM technology has a positive effect on Information Communication.

CRM technology tools are designed to help sales professionals manage customer relationships by improving communication, learning more about customer needs, and creating customized solutions for the customer (Hunter & Perreault, 2007). Another key function of CRM technology is collecting detailed information about the key decision makers and building a detailed profile of those stakeholders. Details such as professional background, education, family, and important dates (e.g., birthdays and holidays) provide salespeople the opportunity to build a deeper relationship on an individual level. Ahearne et al. (2007) categorized this behavior as inducements. Inducements include remembering personal events or holidays and providing social activities such as lunch or drinks. Inducements result in closer personal relationships and improved confidence in the relationship. CRM technology tools, such as contact managers, help sales professionals capture information about customers (e.g., personal details for rapport building) that is more focused on personal needs (Jelinek, 2013). Thus, using such tools can enable salespeople to demonstrate inducement behaviors. Therefore, we propose:

H₃. Sales-based CRM technology has a positive effect on Inducements.

3.1.3. Empathy

Empathy is defined as a “salesperson's demonstration of interest and concern for the welfare of the customer” (Ahearne et al., 2007, p. 606). Relationship marketing provides the foundation of CRM and is more emotional, focusing on bonding, empathy, reciprocity, and shared trust with the customer (Yau, Lee, Chow, Sin, & Tse, 2000). Customers also want companies to demonstrate a caring attitude by implementing technology that can facilitate meaningful and authentic interactions with frontline employees (Gorry & Westbrook, 2011).

We argue that sales technology such as CRM can play a role in deepening the empathetic relationships with customers. We align our logic with the literature suggesting that customer-focused technology tools can “facilitate interactions with customers and alleviate some of

the frustrations felt by them". More importantly, "these technologies enable the storytelling that is so vital to imagination, empathy, and customer care" (Gorry & Westbrook, 2011, p. 129). Scholars have further posited that technology tools can help salespeople solve customers' problems and thus demonstrate a caring attitude towards others (Sharma & Sheth, 2010). For example, tools such as automated sales configurators—used to propose solutions after matching a customer's needs and the firm's service offerings within the customer's dependencies and constraints—can help cement the customer's perception of the salesperson's welfare concerns (Jelinek, 2013). Therefore, we propose:

H₄. Sales-based CRM technology has a positive effect on Empathy.

3.1.4. Sportsmanship

Not only does CRM technology help capture in-depth knowledge of customers and their needs, but it also facilitates collecting information on past experiences, both positive and negative. Sales professionals can use CRM systems to analyze sales opportunities that may be less than ideal. For instance, salespeople may visit a customer they had a bad experience with or one who fired them or is threatening to do so. Ahearne et al. (2007) define this as sportsmanship, which is the "willingness to tolerate less-than-ideal circumstances without demonstrating negativism" (p. 606). Past research has shown that practicing good sportsmanship is important when trying to gain a customer's trust (Ahearne et al., 2007). CRM can provide the necessary information to prepare sales professionals for adverse situations with customers, therefore allowing them to exemplify professionalism and good judgment (Ahearne et al., 2007). Therefore, we propose:

H₅. Sales-based CRM technology has a positive effect on Sportsmanship.

3.2. Moderating role of social media

Social media in the sales context can be described as "any social interaction-enhancing technology that can be deployed by sales professionals to generate content" (Agnihotri et al., 2012, p. 334). Keeping in mind that customers are increasingly relying on social media platforms to gain knowledge about products and companies (Moore, Raymond, & Hopkins, 2015), organizations are also using tools such as LinkedIn, Facebook, and Twitter to communicate more efficiently with customers and gain customer knowledge in real time. Social media has been a focus of research examining customer relationship management processes and has been viewed as complementary to traditional CRM technologies (Trainor, 2012). This complementarity is evident when firms integrate sales-related technologies with social media content to create more-collaborative interactions with customers (Marolt, Pucihar, & Zimmermann, 2015).

When managing customer relationships and experiences, sales organizations are leveraging social media to perform sales-related tasks, such as sharing product information and collecting feedback (Panagopoulos, 2010). To stay current and competitive, organizations are finding it important to add a social media strategy to their existing CRM initiatives. Rodriguez, Ajjan, and Peterson (2014) found that the combination of both CRM and social media technologies positively impacted customer-oriented processes such as understanding customers and adapting to their needs. This concept of social CRM integrates current CRM functionality (i.e., sales activities, buyer profile) with the emerging functionality of social media, therefore engaging customers in a more collaborative way (Marolt et al., 2015; Trainor, 2012). Social CRM is often viewed as a mechanism for facilitating interactive dialog between customers and buyers rather than only capturing one-way customer communications, which have long been supported by traditional CRM technologies (Rodriguez et al., 2014; Trainor, 2012). These collaborative interactions can enable sellers to achieve a higher level of

diligence with their buyers. As previously discussed, successful salespeople experience a deeper commitment towards customers and thus react to their needs more efficiently and in a timelier manner. This level of diligence, defined as being both responsive and reliable (Ahearne et al., 2007), can be enhanced by the interaction of CRM technology and social media. Social media-savvy sales professionals can now see and react to customers' Tweets and LinkedIn posts immediately. This type of information can be coupled with other data captured in CRM tools to enable salespeople to formulate meaningful and timely responses to their customers' needs. The advancement of social media technology allows salespeople who are already using CRM technology to manage customer interactions and engage customers at a more personal level.

By integrating social media and CRM technologies, sales professionals are offered increased opportunities to respond more efficiently and effectively (Agnihotri et al., 2016) vs. using CRM technology alone. From this logic, we argue that social media can enhance the link between CRM technology and salesperson diligence by creating high-value interaction between buyers and sellers. Therefore, we propose:

H_{6a}. Social Media will positively moderate the relationship between Sales-based CRM technology and Diligence.

Past research supports the importance of communication in the buyer-seller relationship (Agnihotri et al., 2016; Morgan & Hunt, 1994). Sales professionals are responsible for providing information on products, services and industry-related information. Social media can help facilitate the stream of information from a push model (i.e., when the sender of the message decides who will receive it) to a pull model (i.e., when the recipient chooses what information they receive). Strategies for communicating with customers have changed drastically with the emergence of social media (Mangold & Faulds, 2009). Agnihotri et al. (2009) found that information technology tools have a positive impact on the information communication behaviors of salespeople. Online social media technologies enable salespeople to share information with any number of their customers more efficiently and in a timelier manner (Bakshy, Rosenn, Marlow, & Adamic, 2012). Blogs, for example, enable organizations to disseminate information to targeted audiences. Today, more companies are capturing social media conversations via their CRM systems. Sales-focused organizations have integrated social media technologies such as LinkedIn, Twitter and Facebook into their existing CRM strategy in order to communicate instantly with customers and create a deeper level of understanding of their needs (Itani, Agnihotri, & Dingus, 2017; Rodriguez et al., 2014). The combination of both social media and CRM can significantly enhance the communication process and, therefore, the customer experience (Rodriguez et al., 2012; Trainor, 2012). "Social media, for relationship building purposes, can offer "tools or specific applications capable of facilitating communication among buyers and sellers in a real- to near real-time, two-way, interactive, and conversation-like fashion" (Moore et al., 2015, p. 1). More than two-thirds of the world's internet population utilizes social media to learn about different products and services and exchange information (Moore et al., 2015). Social communities such as Facebook and Twitter provide detailed information on customers' habits, feedback and needs. This rich customer information can be combined with data stored in CRM and leveraged to better understand customer needs. Therefore, we propose:

H_{6b}. Social Media will positively moderate the relationship between Sales-based CRM technology and Information Communication.

Social media provides the opportunity to learn about customers at a personal level and respond to customers more frequently by remembering personal events in real time. Facebook, for instance, provides key personal information such as birthdates and anniversaries to remind sales professionals of important dates. LinkedIn also provides updates on when individuals have changed roles or position within the firm, enabling sales professional to respond to these key events and

show a deeper, more personal level of interest. While CRM systems have long been able to capture important dates, such as birthdays and anniversaries, this information is often manually inputted, resulting in concerns over accuracy and timeliness. Important dates or events posted on social media are inputted and maintained by the buyer, therefore not only improving accuracy but also providing an efficient way to respond to the event in a timely manner. A salesperson's ability to respond to dates important to the customer has been shown to lead to higher levels of service and customer satisfaction (Agnihotri et al., 2016; Amyx & Bhuian, 2009). This personal information provided by social media can be captured in an organization's CRM system, and the system can remind a salesperson of important dates, thereby facilitating the relationship at a more personal level. Therefore, we propose:

H_{6c}. Social Media will positively moderate the relationship between sales-based CRM technology and Inducements.

A salesperson's empathetic behaviors comprise “inquiring about matters that are personally relevant to the customer, offering support and encouragement when others are having difficulties, and offering help when others encounter problems” (Ahearne et al., 2007, p. 606). Social media enables sales professionals to monitor inbound and outbound communications with customers and track interactions that express the customers' feelings towards a product or service. Therefore, social media should further strengthen the link between CRM and empathy by enabling salespeople to share in customers' happiness and dissatisfaction (Alloway, Runac, Qureshi, & Kemp, 2014). Facebook, for example, provides access to customers and their expressed feelings and experiences with products and services. Wright and Li (2011) found that social media activities were correlated with prosocial behavior, such as making compliments and providing positive reviews. Customers' digital footprints on different social media platforms can provide salespeople with “a valuable record of customer perspectives, attitudes, and concerns” (Gorry & Westbrook, 2011, p. 129). Increased utilization of social media technology, therefore, can result in better and more visible empathic concerns for customers. This deeper engagement with customers can be coupled with CRM data and can further enhance empathy. The integration between traditional CRM and social media enables sales professionals to react more empathetically to their customers and build deeper, more meaningful relationships. Therefore, we propose:

H_{6d}. Social Media will positively moderate the relationship between sales-based CR technology and Empathy.

Social media not only promotes prosocial behaviors but can also encourage less-than-ideal customer feedback and criticism of an organization's services and products. Twitter, for example, is a powerful medium used by customers to express their dissatisfaction with product experiences (Reisner, 2009). As publicized in the business press, “One bad Twitter ‘tweet’ can lose companies as many as 30 customers” (Shannon, 2009). Therefore, it is essential for sales professionals to not only have the capability to listen to negative feedback but also to respond appropriately and exemplify sportsmanship—the ability to persevere in less-than-ideal sales situations (Ahearne et al., 2007). In traditional CRM, negative feedback captured by customer service is static and, even worse, may be outdated. With social media, sales professionals can listen and respond to negative reviews and react quickly to their concerns. Today's sales organizations are incorporating social media technology in their current CRM strategy (Rodriguez et al., 2014) in order to practice good sportsmanship in the customer engagement process and respond to customers' issues in a timelier manner. Therefore, we propose:

H_{6e}. Social Media will positively moderate the relationship between sales-based CRM technology and Sportsmanship.

4. Methodology

4.1. Sample

In collaboration with a reputable marketing research firm, data were collected from B2B sales organizations at companies located in India, an emerging economy. Companies included in this study operate in an industrial market setting in which salespeople working in these companies were responsible for maintaining long-term relationships with buyers. The participants were randomly chosen from a selection of target companies. For each of the sales professionals invited to participate in this study, we made sure to match his/her response with that of a buyer. Customer selection was done randomly from the list of existing customers provided by the sales professional. Complete anonymity and confidentiality were maintained for both customers and salespeople who participated in our study. We emphasized the point that salespeople will not be evaluated based on the data collected in order to attenuate any social desirability bias of buyers.

In the first step, we pre-tested both salespeople's and customers' questionnaires on two different samples. The purpose of the pretest was to check the clarity and relevance of the questions used and to recommend any changes for improvement. For that, some of the questions were refined with appropriate directions and wording for better fit with specific context. Then, a panel of three sales researchers, two from India and one from US, reviewed the survey items. We then started collecting the data.

In the second step, salespeople provided their responses to several variables including CRM technology use, social media use, service climate, and demographic information. In the third step, as mentioned earlier, a list of customers served by each sales professional was compiled. From these lists, randomly selected customers were invited to participate. The invitation explained the purpose of the study and informed customers that they would be asked to report their perceptions of their salesperson's service behaviors. In order to reduce the potential of social desirability bias in customer responses, the invitation informed customers that their responses would be used only for academic research purposes and would not affect salesperson evaluations. Surveys were assigned codes to match salesperson and customer responses later.

Two hundred and nineteen salespeople participated in the first step of the data collection. However, because we wanted to match salespersons and customers, the final sample consisted of 162 salespeople with one customer matched to each salesperson. The salespeople who responded to the survey worked for organizations representing both manufacturing and service sectors including auto service, automobile, financial services, construction, communication, consumer goods, healthcare, information technology, marketing, pharmaceutical, textile, and hospitality. Of the total respondents 77% were males. The mean age of salespeople was 30 years with a range between 21 and 55 years. The number of years of sales experience ranged between 1 and 15 years, with an average of 6 years. Similarly, experience under the current supervisor ranged from less than one year to 8 years with a mean of 4.34 years.

4.2. Measures

The measures used in this study were adapted from existing literature. We did that to make sure the measures were commonly used and validated in previous studies. We adapted the scale used by Sundaram, Schwarz, Jones, and Chin (2007) to measure sales-based CRM technology use. The actual use of technology should include “the extent to which a salesperson fully uses the technology to enhance productivity” as well as “the integration of the technology into work patterns” (Sundaram et al., 2007, p. 103). Accordingly, the five item scale (CR = 0.92; AVE = 0.71; α = 0.90) captured the infusion of CRM technology that refers to the use of technology to enhance salesperson productivity (e.g., *I am using CRM technology to its fullest potential for*

supporting my own work) as well as CRM routinization which refers to integration of CRM into a salesperson's normal work routine (e.g., *My use of CRM technology has been incorporated into my regular work schedule*).

The social media scale (CR = 0.88; AVE = 0.72; $\alpha = 0.82$), consisting of three items (e.g., *I am using all capabilities of social media in the best fashion to help me on the job*), was adapted from Agnihotri et al. (2016). Given the broad nature of social media, respondents were prompted to consider specific social media platforms such as Facebook, LinkedIn, and Twitter.

To measure the service behaviors of salespeople as perceived by their customers, we adapted the scales developed by Ahearne et al. (2007). Unlike the original study, where the sample was drawn from US-based companies representing only the pharmaceutical industry, our sample of companies was based in India and represented an array of industries. These differences required that we make some adjustments to the original scales. Ahearne et al. (2007) utilized 8 items to measure Diligence. However, in the current study salesperson diligence (CR = 0.90; AVE = 0.63; $\alpha = 0.86$) was measured using a five item scale (e.g., *This salesperson provides information I request in a timely manner*). One item (*Satisfies me with the volume and frequency of sample deliveries*) was not included in the survey because of the context specificity² of the original item i.e., pharmaceutical. Later, during the analysis, two additional items were dropped due to poor loadings on the diligence construct (*Makes sure that I can reach him/her when I need something important*; and, *Keeps good records of our past interactions*). Information communication (CR = 0.88; AVE = 0.65; $\alpha = 0.83$) was measured using a four item scale (e.g., *This salesperson makes objective comparisons between product offerings*). Empathy (CR = 0.85; AVE = 0.66; $\alpha = 0.74$) was measured using three-item scales (e.g., *Is always ready to help when others encounter problems*). Both of these scales were similar to the original scale in term of items. Inducement (CR = 0.81; AVE = 0.58; $\alpha = 0.70$) was measured using a three item scale (e.g., *This salesperson consistently remembers birthdays and anniversaries*). Finally, sportsmanship (CR = 0.91; AVE = 0.78; $\alpha = 0.86$) was measured using a three-item scale (e.g., *Maintains composure when others are critical of his/her products of firm*). Originally, Ahearne et al. (2007) utilized 5 items, however, in the current analysis, the two items (*Does not badmouth competitive reps or their firms or products/services*; and, *Does not get upset when a detail or meeting ends prematurely...*) did not load well on the “sportsmanship” construct and were dropped.

Since salesperson service behaviors could be affected by organizational service climate as perceived by salespeople, we included the service climate construct (Salanova, Agut, & Peiró, 2005) to control for the effects service climate has on service behaviors. Service climate (CR = 0.82; AVE = 0.62; $\alpha = 0.71$) was measured using a three-item scale (e.g., *Recognition and rewards for delivering superior customer service are excellent*). We included salesperson experience and tenure with supervisor as control variables that can affect the behaviors of salespeople. Moreover, we controlled for firm size, measured as number of employees, since respondents work for different organizations that vary significantly in number of employees. Detailed information about the measures used can be found in Appendix A.

4.3. Measurement model

To test the hypothesized relationships, we analyzed the data using SmartPLS (Ringle, Wende, & Will, 2005). The complexity of our model, and the small sample size used make it adequate to test our model using partial least square analysis (Chin, Marcolin, & Newsted, 2003). We deployed a two-step approach for analyzing the data

² We acknowledge that delivering samples would not be something done only in pharma sales and may apply to many industries. However, it was not common in every industry included in the current study.

(Anderson & Gerbing, 1988). In the first step we examined the measurement model to assess the reliability and validity of the measures deployed. In the measurement model, we examined the Composite Reliability (CR), and Average Variance Extracted (AVE) of all the measures used. This permitted us to assess the convergent and discriminant validity of the measurements used. The analysis show that all factor loadings were greater than 0.60, providing evidence of convergent reliability (Anderson & Gerbing, 1988; Fornell & Larcker, 1981). The AVE for all variables are above the suggested threshold of 0.50 (Chin, 1998; Fornell & Larcker, 1981). The bootstrap procedure in SmartPLS (Chin, 1998) was used to calculate the t-values of the items loadings; all of the t-values are significant at $p < 0.01$ level.

Cronbach's alphas of the measures used were greater than 0.70. CR is considered an appropriate criterion in assessing internal consistency and reliability of the constructs when using PLS modeling (Hair, Sarstedt, Pieper, & Ringle, 2012). The CRs of all the constructs were greater than 0.80, providing adequate evidence of reliability (Fornell & Larcker, 1981). To test for discriminant validity, we followed the procedures by Fornell and Larcker (1981). All the correlations between SSB constructs were significantly less than one. We also calculated the squared root of the average variance extracted of each construct and compared it to the correlations between the construct and any other construct in the model. None of the correlations were greater than the squared root of the average variance extracted compared with. Moreover, all items loaded on their respective constructs and no item loaded higher onto other constructs (Gefen & Straub, 2005). In sum, we found sufficient evidence of reliability, convergent validity, and discriminant validity to proceed with our analysis. Inter-correlations and relevant statistics of all variables are found in Table 1.

4.4. Results

We tested two models in which we examined the standardized coefficients of the hypothesized relationships and their significance level. The first model examined direct relationships only. The second model included the moderating effects of social media use. The product-indicator approach in PLS allows the creation of interaction constructs by multiplying all possible pairs of indicators from both, the moderator and predictor constructs (Chin et al., 2003). In the interactive model, standardized coefficients with their related t-values were assessed using bootstrap procedures in SmartPLS. Table 2 summarizes the results.

In H_1 , H_2 , H_3 , H_4 , and H_5 , we proposed that sales-based CRM technology has positive direct effects on the salesperson service behaviors of diligence, information communication, inducements, empathy, and sportsmanship. Surprisingly, no support is found for H_1 and H_3 , suggesting that sales-based CRM technology does not have an effect on diligence or inducements. A positive relationship between sales-based CRM technology and information communication is found ($\beta = 0.35$, $p < 0.01$), providing support for H_2 . The results also support H_4 , which proposed a positive relationship between sales-based CRM technology and empathy ($\beta = 0.18$, $p < 0.05$). Finally, the positive relationship between sales-based CRM technology and sportsmanship is supported ($\beta = 0.53$, $p < 0.01$), providing evidence to support H_5 .

Turning to our test of the moderating effects of social media as proposed in hypotheses $H6a$, $H6b$, $H6c$, $H6d$ and $H6e$, we examine the influence of social CRM—viewed here as the interaction between sales-based CRM technology and social media—on salesperson service behaviors. The positive interactive effects of social CRM on inducements ($\beta = 0.19$, $p < 0.01$), empathy ($\beta = 0.20$, $p < 0.01$), and sportsmanship behaviors ($\beta = 0.17$, $p < 0.01$), are positively significant. These results provide support in favor of $H6c$, $H6d$ and $H6e$. To better understand the moderating effects of social CRM on empathy, sportsmanship, and inducements behaviors, we plotted the significant positive effects on graphs (see Fig. 2). Surprisingly, our results show that social CRM negatively impacts diligence behavior ($\beta = -0.14$, $p < 0.05$). Furthermore, we did not find evidence that social CRM

Table 1
Correlations and descriptive statistics.

	CRM	SM	DI	IC	IN	EM	SP	SC	TN	EX	FS
Sales-based CRM (CRM)	<i>0.84</i>										
Social media (SM)	− 0.24**	<i>0.85</i>									
Diligence (DI)	0.18*	− 0.05	<i>0.79</i>								
Information communication (IC)	0.28**	− 0.02	0.42**	<i>0.80</i>							
Inducements (IN)	0.04	0.04	0.20*	− 0.08	<i>0.76</i>						
Empathy (EM)	0.16*	− 0.05	0.13	0.18*	0.05	<i>0.81</i>					
Sportsmanship behavior (SP)	0.53**	− 0.08	0.51**	0.18*	− 0.04	0.14	<i>0.83</i>				
Service climate (SC)	− 0.04	0.02	0.12	0.23*	0.05	− 0.09	0.20*	<i>0.79</i>			
Tenure (TN)	− 0.10	0.12	0.04	0.08	− 0.03	− 0.02	0.09	0.06	−		
Experience (EX)	− 0.07	0.13	0.02	0.07	− 0.05	0.01	0.08	− 0.02	0.84**	−	
Firm size (FS)	− 0.07	0.13	− 0.14	− 0.13	0.02	0.08	− 0.14	− 0.18*	− 0.12	− 0.07	−
Industry type	0.10	0.04	− 0.19*	− 0.08	− 0.06	0.07	− 0.06	− 0.05	0.04	0.01	0.09
Mean	4.73	5.75	5.61	4.55	2.34	6.21	5.5	5.84	4.34	6.00	113
Standard deviation	1.11	1.2	1.03	1.16	0.97	0.69	1.07	1.01	2.88	3.82	347

Square root average variance extracted is added along the diagonal. Firm size was measured using number of employees.

* Significance level: $p < 0.05$.

** Significance level: $p < 0.01$.

Table 2
Results.

Hypothesis	Interaction model (social selling)	Support
H ₁ : CRM technology → diligence	<i>n.s.</i>	No
H ₂ : CRM technology → information communication	0.35**	Yes
H ₃ : CRM technology → inducements	<i>n.s.</i>	No
H ₄ : CRM technology → empathy	0.18*	Yes
H ₅ : CRM technology → sportsmanship	0.53**	Yes
H _{6a} : CRM technology × social media → diligence	− 0.14*	No
H _{6b} : CRM technology × social media → information communication	<i>n.s.</i>	No
H _{6c} : CRM technology × social media → inducements	0.19**	Yes
H _{6d} : CRM technology × social media → empathy	0.20**	Yes
H _{6e} : CRM technology × social media → sportsmanship	0.17**	Yes

Control variables	Diligence	Information communication	Inducements	Empathy	Sportsmanship
Service Climate	0.10	0.24**	0.01	− 0.09	0.18**
Tenure	0.04	0.06	0.08	0.02	0.10
Experience	0.01	0.05	− 0.13	− 0.01	0.04
Firm Size	− 0.10	− 0.07	0.04	0.09	− 0.07
Industry Type	0.20*	− 0.11	− 0.09	0.03	− 0.11

Industry type (0 = product, 1 = services). *n.s.* = non-significant.

* Significance levels: $p < 0.05$.

** Significance levels: $p < 0.01$.

influences information communication behavior.

5. Discussion and implications

In the world of B2B sales, there is a lot of talk about ‘social selling’.³ A 2015 industry report by PeopleLinx suggests that a vast majority of B2B sales and account management professionals (73% of the 277 respondents) consider social selling to be valuable. One of the key reasons for this trend is that social media is a comparatively low cost interactive marketing tool (VanBoskirk, Overby, & Takvorian, 2011). More importantly, it is a promising marketing tool that may complement the customer relationship management process. The current research enhances our understanding of this relatively new practice.

This research investigates how sales-based CRM technology and social media influence SSBs (assessed from the customer’s perspective). While many researchers argue the impact that CRM has on buyer-seller relationships and organizational performance, this study addresses a

gap in the literature by exploring the impact of CRM after the salesperson closes the deal. Moreover, despite the research on sales-based CRM technology and social media, to our knowledge, no studies have empirically tested the interactive effects of social media and CRM on SSBs. We hypothesized and found evidence that sales-based CRM technology positively influences salesperson information communication, empathy, and sportsmanship. Again, to the best of our knowledge, no studies to date have examined how sales technology can influence empathy and sportsmanship behaviors. Despite the lack of attention paid to these service behaviors, our finding that sales-based CRM technology positively influences empathy and sportsmanship is an important contribution to the sales technology literature. The positive effect of sales-based CRM technology on three SSBs suggests that sales technologies are important tools that support salespersons’ tasks and behaviors, not only in closing the deal but also in building customer relationships (Hunter & Perreault, 2007).

The positive relationship between sales-based CRM technology and information communication is consistent with previous findings (e.g., Agnihotri et al., 2009). However, our treatment of this construct as a post-sale service behavior injects novelty into this discussion. Our

³ We thank an anonymous reviewer for the valuable direction as we discuss the findings of this study.

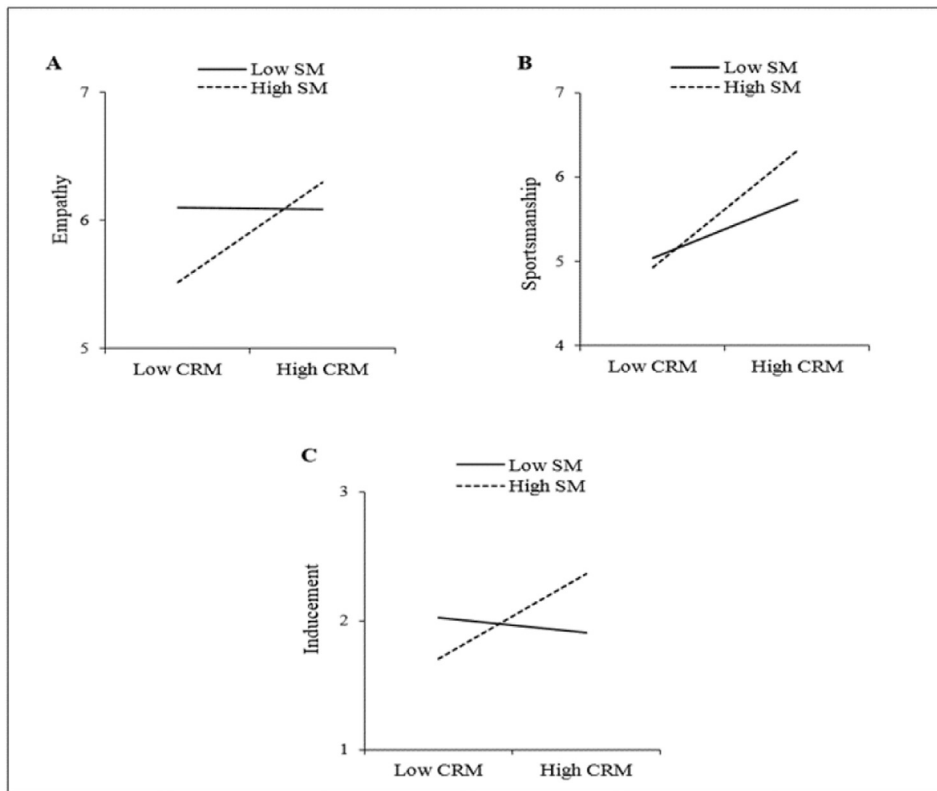


Fig. 2. Interaction effect of sales-based CRM technology and Social Media on: Empathy (A), sportsmanship (B), & inducement (C).

finding that sales-based CRM technology has a positive effect on information communication suggests that technology can help salespeople “transform massive amounts of available data into useful and effective information for their buyer” (Hunter & Perreault, 2006, p. 99). We examine this notion differently from past studies by relating sales technology to information communication by measuring customers', rather than salespersons', perceptions of how effectively information has been communicated. Although sales research has argued that sales technology aids in information communication, we believe this is the first study to measure such a claim by assessing customer perceptions.

The hypothesis suggesting the positive effect of sales-based CRM technology on diligence was not supported. Given that these relationships were not tested before, future researchers should not ignore the theoretical logic that suggests that sales-based CRM technology can facilitate salesperson provision of timely and reliable responses to customers. It would be interesting to explore this relationship in other situations. The lack of empirical support for the link between CRM technology and inducement also provides an opportunity for future researchers. Although this relationship is theoretically grounded, empirical evidence does not provide support for this claim. In a similar fashion, Ahearne et al. (2008) did not find the effect of information technology on a similar construct of attention to detail. They encouraged researchers to unravel a different mechanism, and accordingly, we found that social media use significantly and positively moderates this link. Inducements have received relatively little attention in the literature, despite prior findings that this behavior positively influences customer satisfaction. Managers who struggle to understand the importance of social media may be overlooking an important benefit of such an approach by not recognizing how personal information about customers (e.g., birthdays, families, important events) captured and utilized by sales technology can yield benefits.

Another vital contribution of this research is the investigation of the interactive effects of sales-based CRM technology and social media technology use on SSBs. Today, many companies are using social media conversations to capture more personal and nuanced information about

their customers. Social media can provide detailed information on customers' habits, feedback, and needs, and these details can now be stored in the CRM systems used by sales professionals. Research suggests that the combination of both social media and CRM (i.e., *social CRM*) can significantly enhance the communication process and customer experiences (Rodriguez et al., 2012; Trainor, 2012), yet few studies have empirically tested this integration. We attempted to empirically validate the notion of social CRM in an SSB context by modeling it as an interaction between social media and sales-based CRM technology. We found a significant interactive effect on the relationship with inducements, empathy, and sportsmanship, providing more evidence that sales technology can help salespeople engage with customers in a post-sale scenario. As mentioned in Fig. 2, for example, the findings show that empathy is high due to a sales professional's greater commitment to using CRM and social media combined. The same is found for inducements and sportsmanship. Higher use of social media and CRM is correlated with increased levels of inducements. Therefore, sales professionals who are fully utilizing CRM and social media are better able to respond to their customers' needs and engage with them at a deeper level.

Our results lend support for the notion that complementarity exists between CRM technology and social media, and they provide empirical evidence that social CRM has meaningful implications for sales organizations. As shown in Fig. 2, salespeople using CRM technology in conjunction with social media are more likely to exhibit SSBs (inducement, empathy, and sportsmanship) than their counterparts with low social media technology use. Given the positive effect of the interaction, it is possible that sales managers adopting CRM technology without coupling such technology with social media are missing an opportunity to further enhance their sales professionals' performance. Similarly, this study suggests that managers considering social media investments should focus on how these new platforms integrate with existing CRM systems to support their salespeople in their efforts to engage customers.

Somewhat surprisingly, we did not find empirical support for our

hypothesized interactive effects on the relationships with diligence or information communication. While social CRM may help salespeople perform these behaviors, improvements in behaviors (as measured by customer perceptions) resulting from this integration were not perceptible in our study. Upon reflection, it is plausible that social media does not help salespeople provide more timely or reliable responses or communication, because the information captured on social media tends to be more personal in nature and thus does not support these behaviors like it does inducements. Another possible reason could be the measurement approach adapted in the study. The absence of specific social media use heightens the risk that in a system where the transition between the social media part of the system and the more sales-based parts of the CRM system is nearly seamless, respondents may actually be reporting their use of CRM-based tools rather than their use of the social media tools in the system.

The negative relationship can be also explained by what is considered “social overload”. Recent research has shown that increased usage of social media messages can lead to negative and psychological behaviors such as information exhaustion, decreased satisfaction and the intention to reduce or completely stop the use of social media tools (Maier et al., 2015). The study also suggests that too much information from social media can lead to individuals feeling uncomfortable and losing control, therefore leading the end users, both buyers and sellers, to decrease social media participation (Maier et al., 2015). This speculation warrants further investigation into salesperson-specific issues.⁴ For example, the number of customers a salesperson is serving could play a role in this because too many customers could limit the impact or type of social media platform used, such as LinkedIn. Future studies, controlling for these issues, may further elaborate on some of the reasons social media use does not yield the expected effect on diligence and information communication.

6. Limitations and future research

We view this study as a first step towards a more comprehensive understanding of the customer engagement facilitated by sales technology via SSBs. While we believe we made great strides towards this end, we recognize that our study is not without its limitations. Although

Appendix A. Measurement items

	Loading
Sales-based CRM technology CR = 0.92; AVE = 0.71; α = 0.90	
My use of CRM technology has been incorporated into my regular work schedule.	0.93
My use of CRM technology on the job has been integrated and incorporated at the highest potential.	0.90
I doubt that there are any better ways for me to use CRM technology to support my work.	0.86
My use of CRM technology is pretty much integrated as part of my normal work routine.	0.75
I am using CRM technology to its fullest potential for supporting my own work.	0.74
Social media CR = 0.88; AVE = 0.72; α = 0.82	
My use of social media is pretty much integrated as part of my normal work routine.	0.94
I am using all capabilities of social media in the best fashion to help me on the job.	0.86
I am using social media to its fullest potential for supporting my own work.	0.73
Diligence ^a CR = 0.90; AVE = 0.63; α = 0.86	
The salesperson...	
Never too busy to respond promptly to my special requests.	0.75
Makes sure I can reach him/her when I need something important.	0.22
Returns calls promptly whenever he/she is unavailable.	0.73
Provides information I request in a timely manner.	0.91
Makes sure that I can always reach him/her within 24 h.	0.76
Provides his/her services at the time he/she promises to do so.	0.88

⁴ We thank an anonymous reviewer for this insightful feedback related to social media effects.

our dyadic data allowed us to eliminate some of the common method concerns that are frequently noted in sales research, we encourage scholars to use additional objective measures for independent and dependent variables.

Our data were collected in India, and the sampling frame consisted of salespeople representing a variety of industries. We recognize that a diverse set of respondents may increase our study's generalizability, but we may be missing some of the idiosyncrasies found in different industries, organizations, and sales cycles. While we attempted to control for this in our model, future studies that focus on a specific firm or industry may provide a deeper understanding of the relationships reported here.

The cross-sectional nature of our study provides an opportunity for future research to examine our relationships using a longitudinal design. For example, examining how relationships evolve over time and the differential influence of technology on SSBs would be interesting and worthwhile. Also, future research can explore the potential non-linear effects of CRM. For example, it seems plausible that the effort to capture and use customer data from social media could become overwhelming and potentially negatively influence a salesperson's ability to service customers effectively. Additionally, the use of the social media construct is general in nature, although respondents were given examples of social media, such as LinkedIn, Facebook, and Twitter. We did not differentiate between intra- and inter-organizational platforms. Future studies may incorporate specific social media tools in order to study the complimentary effects of CRM. Researchers are encouraged to study the possible role social CRM could play in supporting salespeople with their different sales and service job demands that sometimes come into conflict with each other (e.g., Agnihotri, Gabler, Itani, Jaramillo, & Krush, 2017). We hope this study serves as a foundation for future research and application.

Acknowledgement

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<i>Keeps good of records of our past interactions.</i>	0.15
Information communication ^a CR = 0.88; AVE = 0.65; α = 0.83	
This salesperson...	
Makes objective comparisons between (product offerings).	0.74
Frequently uses reprints to support his/her claims.	0.78
Uses company brochures to emphasize points.	0.82
Acknowledges the strengths and weaknesses of his/her (product offerings).	0.89
Inducements ^a CR = 0.81; AVE = 0.58; α = 0.70	
This salesperson...	
Will sometimes do little things like give out holiday presents.	0.90
Consistently remembers birthdays and anniversaries.	0.69
Remembers my spouse's and children's names and asks about them.	0.64
Empathy ^a CR = 0.85; AVE = 0.66; α = 0.74	
This salesperson...	
Always demonstrates a sincere interest in people.	0.85
Displays a caring attitude towards others.	0.88
Is always ready to help when others encounter problems.	0.68
Sportsmanship ^a CR = 0.91; AVE = 0.78; α = 0.86	
This salesperson...	
Waits patiently to speak with me or members of my staff.	0.89
<i>Does not badmouth competitive reps or their firms or products/services.</i>	0.45
<i>Does not get upset when a detail or meeting ends prematurely.</i>	0.11
Maintains composure when others are critical of his/her products/services of firm.	0.93
Follows my office procedures.	0.80
Service climate CR = 0.82; AVE = 0.62; α = 0.71	
The overall quality of the service provided is outstanding.	0.93
The overall climate for service in my territory is excellent.	0.79
Recognition and rewards for delivering superior customer service are excellent.	0.60

^a Customer's response. Items in italics were dropped due to low loadings.

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- Raj Agnihotri, PhD, (Kent State University) is an Associate Professor of Marketing at University of Texas at Arlington, 701 West Street, Arlington, Texas, 76019. He can be reached at Phone: 817-272-3016 or rajshekar.agnihotri@uta.edu.
- Kevin Trainor, PhD. (Kent State University) is an Associate Professor of Marketing at Northern Arizona University, The W.A. Franke College of Business, P.O. Box 15066, Flagstaff Arizona. He can be reached at kevin.trainor@nau.edu.
- Omar Saadallah Itani (University Texas at Arlington) is an Assistant Professor of Marketing, Lebanese American University, Beirut – Lebanon. He can be reached at [omar.itani@lau.edu.lb](mailto:itani@lau.edu.lb).
- Michael Rodriguez, Ph.D. (Stevens Institute of Technology) is an Associate Professor of Marketing at Skema Business School, 920 Main Campus Drive, Raleigh NC, 27606. He can be reached at michael.rrodriguez4@skema.edu.