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Social Commerce: A Contingency Framework for Assessing Marketing Potential

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Abstract

A key issue for marketers resulting from the dramatic rise of social media is how it can be leveraged to generate value for firms. Whereas the importance of social media for brand management and customer relationship management is widely recognized, it is unclear whether social media can also help companies market and sell products. Extant discussions of social commerce present a variety of perspectives, but the core issue remains unresolved. This paper aims to make two contributions. First, to address the lack of clarity in the literature regarding the meaning and domain of social commerce, the paper offers a definition stemming from important research streams in marketing. This definition allows for both a broad (covering all steps of the consumer decision process) and a narrow (focusing on the purchase act itself) construal of social commerce. Second, we build on this definition and develop a contingency framework for assessing the marketing potential that social commerce has to offer to firms. Implications for researchers and managers, based on the proposed definition and framework, are also discussed.

Keywords: Social commerce; Social media; Social networks; Online communities; Consumer decision process; Facebook; F-commerce; Digital marketing strategy

Introduction

Given the enormous popularity of social media and social networking applications, it is no surprise that marketers have become intensely interested in how to capture economic value from the billions of social interactions that consumers engage in every day around the globe. As e-commerce continues to evolve into a distinctly more social activity, marketers are turning their attention to the implications of computer-mediated social environments (CMSEs).

Although academics have begun to invest considerable effort in understanding why consumers use social media (e.g., Hoffman, Novak, and Stein 2013), much less research exists regarding how to optimize social media and social networking environments for marketing and selling products and services. The issue is of critical importance because little is known about how the interactions that take place in online social environments contribute to effective commerce efforts. Such efforts are generally associated with the term "social commerce" by managers (e.g., Mattioli 2011) and scholars (e.g., Liang and Turban 2011–2012) although a clear meaning of this term has yet to be developed. Therefore, the purpose of this paper is to define the domain of social commerce and propose a contingency framework and research agenda for assessing its market potential. We expect this effort will be useful to researchers and managers interested in exploring the challenges and opportunities that social commerce present.

Contingency approaches have a long, rich history in marketing and allied disciplines (see Zeithaml, Zeithaml, and Varadarajan 1988). From a theory development perspective, contingency

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frameworks allow researchers to develop more nuanced conceptual arguments aimed at identifying conditions in which the strength of focal main effects is stronger or weaker—depending upon certain contingency factors. This theory development approach, by directing attention at interaction effects, imposes considerable discipline on researchers by demanding that the conceptual basis for the following be articulated: potential antecedents and outcome constructs, the causal nexus between them, the delineation of specific factors that can alter the nature of these relationships, and the identification of alternate paths that different firms can follow to reach the same performance outcome (i.e., the notion of equifinality). Following the rationale and evidence presented by Zeithaml, Varadarajan, and Zeithaml (1988) across a broad range of research contexts, we believe that a contingency framework of social commerce can play an important role in advancing theoretical and empirical work on this topic.

In what follows, we first review the literature on social commerce and offer a theoretical definition of the concept. We then introduce our contingency framework, offering research propositions. We conclude by discussing implications for future research and managers of different organizations that are affected by social commerce.

Extant Perspectives on Social Commerce

Lack of Clarity Regarding the Domain of Social Commerce

As interest in the potential commercial implications of social media has grown in recent years, several efforts have been made to understand what the term "social commerce" represents (for an overview of recent efforts, see Liang and Turban 2011–2012; Marsden and Chaney 2012). However, as is often the case with rapidly-changing trends in the digital marketplace, these efforts have been less than satisfactory. In their editorial to a Special Issue on social commerce of the *International Journal of Electronic Commerce*, Liang and Turban (2011–2012) summarized the state of research on social commerce and noted that "there is no standard definition" (p 6) of the phenomenon in question. However, they identified two "fundamental elements" of social commerce: social media and commercial activities.

Taking a collective look at extant work that seeks to characterize the domain of social commerce, it is evident that there is much confusion about what the term social commerce means. It has been used to refer to a variety of firm-related activities, but also to activities that consumers engage in the digital marketplace (see Marsden and Chaney 2012). References to firm-related activities usually focus on creating such environments (e.g., the development of online communities where potential customers can interact with each other), while references to consumer-related activities often emphasize shopping/transactions in online environments that have 'social content' (e.g., buying a product after reading a review). Stephen and Toubia (2010) limit the social commerce concept to contexts where sellers are consumers, but not firms.

From our perspective, this conceptual confusion stems from two main considerations: (1) it is unclear whether the term social commerce pertains to activities of consumers, firms, or both; and (2) it is unclear what specific activities are (or are not) included in the domain of social commerce. Regarding the first issue, we believe that consumer- and firm-related activities in the marketplace are intrinsically linked and thus the domain of social commerce should refer to both consumer- and firm-related activities. Our position regarding the domain of social commerce is that it should not be construed narrowly as referring only to transactions. Computer-mediated environments (CMEs) can facilitate a broad range of activities that may directly, but also indirectly, impact a focal transaction (see, e.g., Edelman 2010). Specifically, as we discuss below, the domain of social commerce should encompass exchange-related activities that occur before, during, and after a focal transaction.

Our broader view of social commerce is consistent with recent industry efforts to develop metrics for "socially-influenced commerce" (e.g., new functionalities of Google Analytics that offer "attribution analysis" to track a series of social interactions and assess how, over time, they may eventually lead to a transaction). Google and Facebook's initiatives to "socialize" search (e.g., customizing product-search results based on preferences of individuals in a social network) also reflect the potentially significant role that online social interactions can play in shaping individuals' activities in CMEs. At the same time, to be meaningful, the concept of social commerce must be distinguished from other established concepts such as electronic commerce. We view the domain of social commerce to be a subset of electronic commerce. Whereas electronic commerce focuses on exchange-related activities in CMEs, we limit the domain of social commerce to exchange-related activities that have a clearly defined social component—that is, activities that occur in, or are influenced by, an individual's social network.

Proposed Definition of Social Commerce

Guided by our perspective outlined above, and to facilitate consistent use of this construct in future research efforts, we offer the following definition:

> *Social commerce refers to exchange-related activities that occur in, or are influenced by, an individual's social network in computer-mediated social environments, where the activities correspond to the need recognition, pre-purchase, purchase, and post-purchase stages of a focal exchange.*

There are two important building blocks of our proposed definition. First, the scope of social commerce refers to exchange-related activities that include, but are not limited to, transactions. The domain of exchange-related activities in our definition is broad—it includes activities that occur in both online and offline environments. We argue that there is both a consumer-side and a firm-side to activities that comprise the domain of social commerce. Thus, activities that consumers engage in before, during, and after a transaction, along with corresponding firms' initiatives to facilitate those activities, are included in the domain of social commerce. This multi-faceted perspective is consistent with contemporary discussions of

social commerce (Liang and Turban 2011–2012; Marsden and Chaney 2012). The notion of exchange—referring, generally, to a reciprocal relationship between two entities—is a foundational concept in the marketing discipline (see Bagozzi 1975). By explicitly incorporating the notion of exchange in the definition, we are able to connect an emerging phenomenon with long-standing foundational ideas in the marketing discipline. We believe this conceptual continuity is a desirable feature of the proposed definition.

The second building block of our definition is the computer-mediated social environments (CMSEs). In their seminal article that sparked considerable interest in the marketing discipline, Hoffman and Novak (1996) describe a computer-mediated environment (CME) as a "dynamic distributed network, potentially global in scope, together with associated hardware and software" (p 53). Using this network, firms and consumers access hypermedia (i.e., digital) content and interact with one another. According to our definition, social commerce occurs in a subset of CMEs—those that are *social*. But what exactly makes CMEs social?

To address this question, we rely on a rich body of literature that has built on Rheingold's (1993) influential work on virtual or online communities in which individuals congregate and interact via computer-mediated communication.[1] Almost two decades after Rheingold's prescient analysis, a number of initiatives such as Facebook, Twitter, and Pinterest have emerged as global CMEs with substantial social characteristics—digital environments that we refer to as CMSEs. In addition, many firms—retailers and non-retailers—have added social user-generated content (UGC) features to their sites that allow these sites to mimic characteristics of online communities (e.g., by highlighting comments from a user's social network).

A broad spectrum of CMSEs exists, with the number and level of personal relevance of social components varying significantly across CMSEs. This heterogeneity of CMSEs has important implications, as comments from people who are part of a consumer's personal social environment (such as Google plus or Facebook "friends") may have more personal relevance—and, perhaps, more influence—than comments from unknown or anonymous consumers. A key issue is how the boundary of an individual's social network is defined. Following Rheingold (1993, p. 5), we delineate the boundary based on the existence of "webs of personal relations" that stem from meaningful, sustained social interactions and personal connections among network members. Such interactions and connections are more likely for a group of Facebook users, but not for Amazon customers. In practice, how a specific threshold of interactions and connections is established may be an empirical, operational issue that researchers will have to establish when delineating the boundaries of an individual's social network—and, thus, domain of social commerce activities relevant in the context of that social network.

In summary, the proposed definition of social commerce is parsimonious, addresses the prevailing confusion about the domain of this concept, is linked to important theoretical streams within the marketing domain, and allows us to clearly delineate the scope of consumer- and firm-related activities pertaining to social commerce. We will build on this definition to develop a contingency framework in which we describe in more detail: (1) exchange-related activities between consumers and firms that are facilitated by computer-mediated social environments; and (2) conditions under which the facilitative role of such CMSEs is weakened or strengthened. To facilitate the development of this framework, the next section provides an overview of key insights from current research and trends related to social commerce.

Current Social Commerce Research and Trends

While there has been an explosion of research on social media, most of that research has tended to focus on consumer behavior in social networking sites like Facebook or on the implications of online word-of-mouth. There has been much less research examining how social media applications and networks might promote the creation of economic value. This is important because the results to date have been disappointing.

Facebook, for example, has had a number of high profile stumbles in the social commerce arena. First, in late 2007, there was Beacon, Facebook's ill-fated attempt to link consumers' browsing behavior on third-party Web sites to the ads they would see on Facebook. Facebook shut down the advertising platform in the fall of 2009 after they settled a class-action lawsuit charging the company with violating consumers' privacy (Vascellaro 2009). Next, in 2009, Facebook launched their foray into social commerce with "F-commerce," online storefronts created by well-known retailers like Nordstrom and Gap to sell products through Facebook. But the service never took off, less than 10% of brands on Facebook ever bothered to set up a storefront, and retailers who did have storefronts concluded that Facebook users are not there to shop but to socialize, and shut their Facebook storefronts in early 2012 (Miller 2012). Recently, however, there has been an interest in F-commerce among small business retailers, presumably because it is an easy and inexpensive way to experiment with social commerce (Zimmerman 2012). Twitter, thus far, has similarly had only limited success as a social commerce platform. For the most part, brands have been slow to exploit Twitter as an e-commerce driver. A notable exception is Zappos; the company reports that an order shared on Twitter results in $33.66 in sales for Zappos, compared to only $2.08 for Facebook and only $.75 for Pinterest (Thomas 2012; see also Deloitte 2013 for a study conducted by Twitter that shows a link between tweets and sales outcomes).

Most recently, an IBM study of the effectiveness of online promotions tied to "Black Friday" in 2012 found that while

[1] As this paper focuses on CMSEs, we limit our discussion to social interactions in online environments. This does not imply that social interactions that occur in offline contexts are not relevant. In fact, the extensive marketing literature on word-of-mouth effects attests to the significant role that offline social interactions can play in shaping exchange-related activities. The objective of this paper, however, is to delineate the role that social interactions in online environments can play in shaping exchange-related activities. Therefore, for ease of exposition, our discussion is limited to social interactions that occur in online environments. At the same time, as noted earlier, the domain of exchange-related activities in our definition is broad—it includes activities that occur in both online and offline environments.

consumers are using mobile technologies, especially the iPad, to shop online, sales attributable to social media, such as Facebook, Twitter, LinkedIn and YouTube were actually *down* 35% from 2011, accounting for less than 1/2 of 1% (0.34) of all online sales on Black Friday (IBM 2012). We do not believe this means that social commerce is dead on arrival. Instead, we suggest that research is needed to carefully examine the path from social interaction to transaction. If a consumer "likes" a brand on Facebook, does that increase the probability of an eventual sale? Can a brand's Twitter followers motivate brand loyalty? Does a brand's viral YouTube video translate to improved brand metrics?

Marketers are also beginning to focus on the value of "earned" social media. For example, Stephen and Galak (2012) find that socially earned media can have a long-term impact on sales and helps to drive more traditional earned media. The effects appear to be particularly pronounced for online communities, suggesting interesting opportunities for marketers who are thinking of increasing their use of CMSEs as part of their larger marketing plans.

Why consumers might contribute to social media sites, thereby increasing earned media, was recently investigated by Toubia and Stephen (2013). In an investigation involving Twitter users, these authors found that consumers contribute for both intrinsic and image-related reasons. Paradoxically, consumers may become less active Twitter users, and less likely brand advocates, when firms follow them. This suggests that social media like Twitter may be more useful as a broadcast channel for social commerce efforts, than a consumer tracking channel.

A few studies in a recent volume specifically devoted to social commerce have begun to point the way. Olbrich and Holsing (2011–12) examined the factors that predict purchase in social shopping communities. Social shopping explicitly links social networks and online retailing. Popular examples include Polyvore and ThisNext. Their analysis of over 2.7 million consumer sessions from a social shopping community revealed that direct shopping features such as filters and search did not promote click-through to the retailer, while social shopping features such as ratings and tags did. This suggests that social interaction can indeed facilitate transactions.

In a study that has implications for video sharing sites like YouTube, Pagani and Mirabello (2011–12) tested the hypothesis that personal engagement and social engagement would lead to both active and passive usage on the site. Based on their analysis of seven social TV Web sites like Hulu, the authors found that both types of engagement affect both types of behaviors (i.e. active and passive usage of the site). Engagement is conceptualized as individuals' online experiences. The authors conclude that these effects bode well for firms' social commerce initiatives.

Liang et al. (2011–2012) hypothesized that microblogs like Twitter have the potential to promote social commerce behaviors and ongoing social sharing behaviors, if they offer social support and high-quality service. Their analysis of a popular Taiwanese microblogging site supported their analysis and provided evidence that the effect is due in part to the sense of commitment, trust and satisfaction that the microblogging members experience with the service. Their results reinforce the idea that when consumers experience social rewards from their social interactions, social commerce is more likely to occur.

Collectively, these studies indicate that online social interactions can create value for consumers, but many questions remain unanswered about how and when such interactions facilitate actual transactions in the marketplace. In the next section, to address this issue, we present our contingency framework for assessing the market potential of social commerce.

A Contingency Framework for Assessing the Marketing Potential of Social Commerce

Overview of the Framework

The proposed contingency framework of social commerce (see Fig. 1) has the following components: (1) firm's presence and initiatives in CMSEs; (2) outcomes related to consumers' decision-making that stem from the firm's presence and initiatives in CMSEs; and (3) factors that moderate the relationships between our primary antecedent constructs and outcomes.

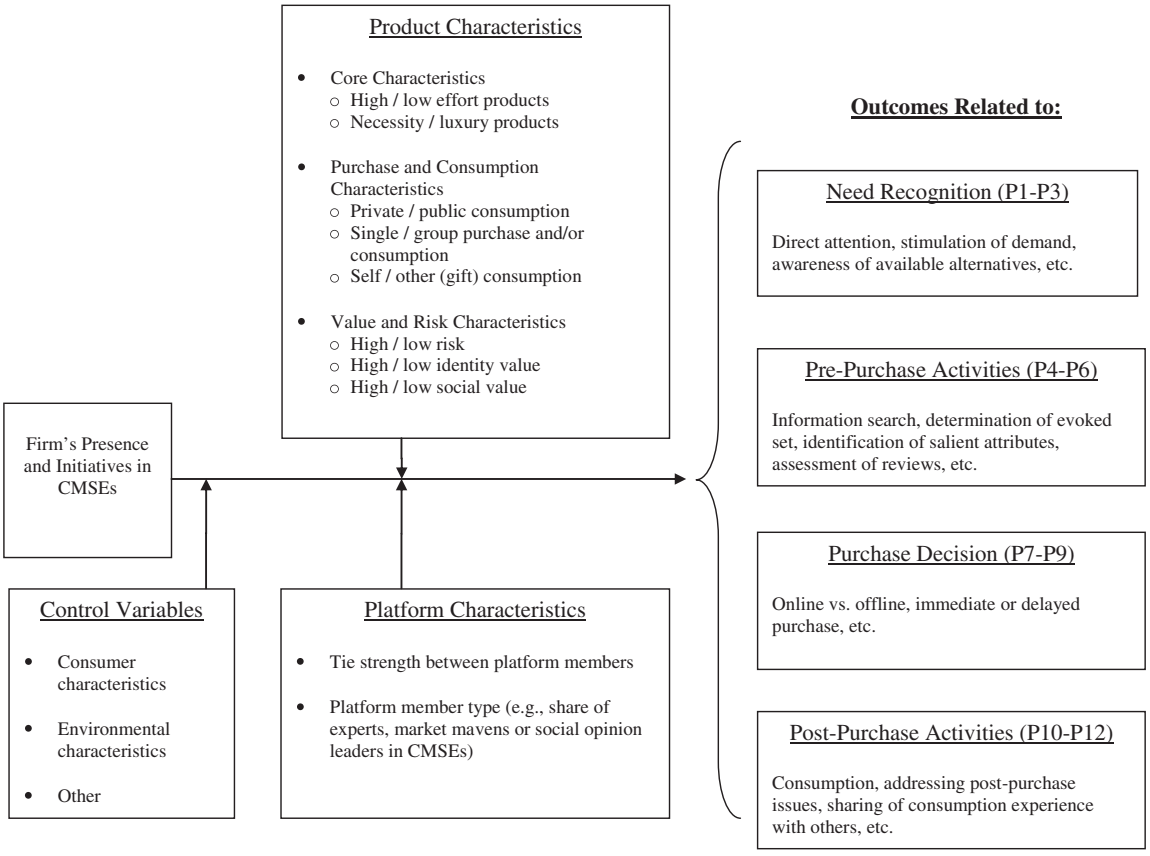
The framework builds on two central arguments. The first argument is that CMSEs offer potential value to consumers in the form of information that is social—a combination of two key elements of the uses and gratifications theory explaining what motivates people to use media (Katz, Blumler, and Gurevitch 1974–75). Second, a firm's effort related to CMSEs can play a facilitative role in influencing outcomes related to consumer decision-making, with the strength of this facilitative role varying across product and platform characteristics.

Both arguments are consistent with theoretical work on the potential value created by computer-mediated environments, in general, and contingency frameworks that have been proposed to understand how such value may be created for consumers and firms who participate in these environments (see, e.g., Varadarajan and Yadav 2002; Yadav and Varadarajan 2005). In our framework, consumer and broad environmental characteristics are depicted as illustrative control variables; other factors may also play a role. A brief description of these components of the framework is provided below.

Key Antecedent and Outcome Constructs

In the contingency framework, the unit of analysis is a firm that offers a focal product (good or service) in the marketplace. The primary antecedent construct in the model is the firm's presence and initiatives in CMSEs. This construct refers to the efforts of a focal firm with respect to (1) creating a presence in one or more CMSEs; and/or (2) specific activities the firm engages in to leverage its presence in CMSEs. Godes et al. (2005) proposed that there are four principal, not mutually exclusive, roles that firms can play in their management of social consumer interactions (which include online interactions).

First, firms may create a presence in social networks (e.g., establishing a brand page on Facebook) simply to collect market information from consumers' posts. Second, firms may use social networks to foster conversations between consumers. They can do so, for example, by adding social networking



Note: For ease of exposition, the specific moderators listed in each box are illustrative, not exhaustive. Similarly, for activities pertaining to outcomes in the domain of social commerce, only a representative set is listed. Additional details are discussed, where appropriate, in the text. Propositions pertaining to the four purchase-related phases are shown in parentheses.

Fig. 1. Social commerce: A contingency framework for assessing marketing potential in computer-mediated social environments (CMSEs).

features to their Web site which enable (product-related) discussions among community members. Third, firms can actively manage social interactions; for example, by organizing consumer-generated advertising contests in which consumers contribute their creative material, give feedback to the contestants, and vote for their favorite submissions via dedicated micro-sites with social networking features. Finally, firms can have a participatory role in social interactions by contributing to ongoing conversations on a variety of CMSE platforms such as online forums, blogs, Twitter, Pinterest, and LinkedIn accounts (either company-owned or other).

The second component of the framework—outcomes—refers to four inter-related phases involved in purchasing a product: need recognition, pre-purchase activities, purchase decision, and post-purchase activities. Starting with the early theoretical models of consumer behavior (e.g., Howard and Sheth 1969), and continuing through contemporary descriptions of consumer decision-making (e.g., Hoyer and MacInnis 2010), it is widely recognized that these four phases capture key aspects of consumers' activities during product purchase. We do not presume that these phases always follow each other in a linear, sequential fashion. In line with Court et al. (2009) and Edelman (2010), we view consumers' interaction with brands as a journey in which these various phases may occur in non-linear, iterative loops. We also recognize that not all four phases will be applicable to all purchases (for instance, impulse purchases may involve very little pre-purchase activities). Our framework includes all four outcome-related stages for the sake of comprehensiveness, recognizing that the applicability of and order in which a specific stage occurs is likely to vary across purchase situations.

Product and Platform Characteristics as Moderators

The proposed framework features two broad categories of moderating factors: (1) product characteristics; and (2) platform characteristics.[2] Based on the literature in consumer behavior we will argue, in subsequent sections, that these factors can both strengthen or weaken the positive, generally facilitative role of a firm's effort to spur social commerce. This contingency perspective, suggesting heterogeneity across types of products and platforms, is consistent with emerging evidence pertaining to

[2] The term platform, in the context of the framework, refers broadly to the communication infrastructure and features of CMSEs. Thus, differences in platform characteristics capture the heterogeneity across CMSEs. In this paper we focus only a limited number of these differences (primarily related to member characteristics).

CMSEs (see, e.g., Smith, Menon, and Sivakumar 2005; Smith, Fischer, and Yongjian 2012).

As the contingency framework focuses on the consumer decision process, we start by classifying product characteristics from the perspective of the consumer. Our classification approach is conceptually similar to that suggested by Murphy and Enis (1986) who argued that products should be distinguished on the basis of consumer-centric considerations (e.g., perceived risk and effort involved in the purchase and use of products; see also: Bucklin 1963; Holton 1958). Building on this approach, we propose a consumer-based classification based on three dimensions. For each dimension, we have selected from the literature two or three key product characteristics that are most relevant for our purpose of discussing the contextual conditions in which the facilitative role of CMSEs for social commerce is likely to be weakened or strengthened. As the propositions will show, these characteristics are not equally important in all phases of the consumer decision process. The three sets of product characteristics, discussed in detail later in the paper, along with the underlying rationale regarding the posited moderating role, are as follows[3]:

(1) Core characteristics—selected product features that have special relevance in CMSEs. We examine differences between: high vs. low effort products and necessity vs. luxury products.
(2) Purchase and consumption characteristics—how a product is purchased and consumed. We examine differences between: private vs. public consumption; single vs. group purchase and consumption, as well as self vs. other (gift) consumption.
(3) Value and risk characteristics—benefits and risks associated with using a product. We examine differences between: high vs. low risk products; high vs. low identity products; and high vs. low social value products.

Finally, the last set of moderating variables depicted in Fig. 1 pertains to "platform characteristics" — structural differences between CMSEs such as the type of individuals who serve as members and the nature of relationships that are formed in these environments. For instance, large CMSE platforms such as Facebook, Pinterest, and Twitter have significant differences in terms of their interfaces and functionalities to create and manage content, and the ability to "follow" individuals on the platforms (Smith, Fischer, and Yongjian 2012). As we discuss in subsequent sections, the moderating impact of certain product characteristics is also shaped by platform-specific differences.

CMSEs and Phases of Consumer Decision-Making: Propositions

We are interested in understanding how firms can leverage CMSEs to support and influence four different phases in consumers' purchase decision process: need recognition, pre-purchase activities, purchase decision, and post-purchase activities. For each phase, our discussion focuses on two important considerations: (1) the facilitative role CMSEs may play; and (2) how this facilitative role may be strengthened or attenuated by the characteristics of the products and the CMSE platforms on which these products are featured. Using Fig. 1 as an overarching guide for this section, we develop propositions that identify specific conditions under which we expect the effectiveness of social commerce initiatives to vary. Table 1 provides an overview of the propositions. [4]

The Role of CMSEs in the Need Recognition Phase

In the need recognition phase, the consumer becomes aware of a problem or need due to an internal signal (e.g., hunger) or an external signal (e.g., marketing stimulus). Our social environment often plays an important role in influencing and determining perceived needs. For example, we learn about products and services by observing others, which may subsequently prompt us to adopt the same products and services (e.g., Rogers 1962). Online social networks provide consumers with the opportunity to be regularly informed about the purchases made, the products liked or pinned, and the places visited by their friends. Thus, social signals act as sources of informational influence; information from others increases consumers' knowledge about some aspect of their environment (e.g., Park and Lessig 1977). We expect that informational social influence on perceived needs occurs for a broad range of product types.

Interpersonal influence in social networks also occurs at a normative level (e.g., Deutsch and Gerard 1955). Normative interpersonal influence can be value-expressive in nature; consumers want to identify or enhance their image with significant others through the acquisition and use of products and brands. Another form of normative influence is utilitarian, i.e., consumers conform to the expectations of others regarding purchase decisions to achieve rewards or avoid punishments (for an overview, see Bearden, Netemeyer, and Teel 1989, p 474). Thus, besides the informational influence stemming from signals about the purchase and consumption behavior of one's social network members ('pins', 'check-ins', 'bought by X', etc.), social signals such as Facebook "likes" can also be used to assess which products, brands, and places are desirable in the eyes of a group or specific person a consumer identifies with or conforms to.

Extant research has established that some products and brands are more likely than others to be carriers of normative influence (e.g., Bearden and Etzel 1982). In particular, influence varies with the level of *conspicuousness* in terms of consumption setting; social influence is stronger for publicly- than for privately-consumed products (Bourne 1957).[5]

[3] Although these product characteristics vary along a continuum, we dichotomize them to facilitate conceptual analysis and the development of propositions.

[4] Our discussion is organized according to the four purchase decision phases. Several moderating factors are incorporated in this discussion, as needed, to develop the propositions. Following this narrative structure, product and platform characteristics are not discussed sequentially as depicted in Fig. 1.

[5] We refer explicitly to the consumption setting of the 'receiver', not the purchase setting of the signal 'sender'. In the context of CMSEs a consumer (sender) can only exert influence on another consumer's (receiver) need recognition when his/her purchase is made public, either by means of an automatic message or via a self-written post.

Table 1
Facilitative role of CMSEs at different stages of consumer decision making.

Stage of consumer decision process		Facilitating role of CMSEs	Contingency factors	Illustrative CMSE activities
Need recognition (P1–P3)	Consumer becomes aware of problem or need	–Social network acts as source of inspiration and referral for consumer's pending purchase –Identifying with or conforming to reference groups	–Consumed in private vs. in public –Necessity vs. luxury product –CMSE's tie strength	Wish-lists, 'like', 'check in', 'bought by', 'pinned'
Pre-purchase activities (P4–P6)	Consumer searches for information and evaluates alternatives	–Social network acts as source of information and approval for planned purchase –Reducing functional, financial and social risk	–High vs. low functional, financial and social risk of products –Share of experts, market mavens or social opinion leaders in CMSEs	Reviews, recommendations, discussion forums, blog posts, tweets, polls
Purchase decision (P7–P9)	Consumer decides what, where and when to buy (or not to buy at all)	–Social network acts as source of information about where and when to buy –Social network helps coordinate group purchases	–High vs. low effort products –High vs. low social component of purchase or consumption –CMSE's tie strength	'buy now', group-purchase, price comparison sites, gift (coupon) delivery
Post-purchase activities (P10–P12)	Customer determines satisfaction and may recommend or talk about purchase	–Social network acts as a sounding board for consumption experiences –Signaling identity, bonding and sharing experience, helping others	–High vs. low identity/social value –Fit between product and consumers' desired identity in CMSEs	'like', 'check in', 'bought by', 'pinned', blog posts, tweets, reviews, referrals, recommendations

Note: CMSEs refer to computer-mediated social environments. In column 1, propositions are shown in parentheses.

Influence also varies with the *level of consumer adoption*; social influence is stronger for 'luxuries' that are more exclusive as they are owned by fewer consumers, whereas it is lower for 'necessities' that are owned by virtually all consumers (Bourne 1957). Therefore, we argue that in the phase of need recognition, participants in CMSEs are more likely to pay attention to signals about other people's purchases and consumption experiences regarding publicly-consumed products as well as luxuries.

Normative social influence increases with *tie strength* (Brown and Reingen 1987). De Bruyn and Lilien (2008) have shown that in online social networks, tie strength between communicators is an important determinant of generating awareness. Thus, we expect social influence on perceived needs to increase with tie strength. Some networks, like Facebook, blogging communities, and online discussion forums are characterized by relatively stronger links between members that have been established by regular offline and/or online social interactions. Other social networks, such as review and rating Web sites, Twitter, and Pinterest tend to be characterized by relatively weaker links between members. That is, these networks offer fewer opportunities to build strong social and emotional bonds with the other members. Following the above discussion, we expect that social influence exerted by online social networks on perceived needs to be stronger depending on the conspicuousness of consumption and adoption, as well as the level of tie strengths found in the networks.

P1 For products that have a high degree of consumption conspicuousness (i.e., public consumption), CMSEs' influence on consumers' perceived needs is stronger compared to products that have a low degree of consumption conspicuousness (i.e., private consumption).

P2 For products characterized as luxuries, CMSEs' influence on perceived needs is stronger compared to products that are characterized as necessities.

P3 CMSEs' influence on consumers' perceived needs regarding publicly consumed products, as well as luxuries, will be stronger in social networks that are characterized by strong social ties compared to social networks that are characterized by weak social ties.

The Role of CMSEs in the Pre-purchase Phase

In the pre-purchase phase, consumers may engage in information search and the evaluation of alternative options. With the rise of the Internet, consumers have been quick to turn to online consumer-generated content to inform their pre-purchase activities. The advantage of consumer-generated content over marketer-generated content is the perceived trustworthiness of the information; consumers are generally assumed not to have any vested interest when writing about their consumption experiences and product evaluations.

Therefore, online platforms that provide consumer reviews, ratings, recommendations, or comparisons prosper. An estimated 78% of US online consumers use the Internet to search for information about products and services, and 32% have posted reviews and comments (Jansen 2010). Recommendations from unknown and anonymous consumers can be influential, but, as argued earlier, social influence increases with tie strength. Thus, when consumers can access the reviews, ratings, and recommendations of those in their social circle, the impact of CMSEs in the pre-purchase phase can be even more pronounced (Hennig-Thurau, Wiertz, and Feldhaus 2012).

Although one can find social information on the Internet about multiple topics from applications like Google and Facebook (e.g., friends who have recommended a product or other content), we argue that the impact of social networks on pre-purchase activities is stronger for some product types versus others. Consumers consult with others before their purchase decision to reduce different types of *perceived risks*: financial, performance, physical, psychological, social, and time (convenience) risk

(e.g., Peter and Ryan 1976). Research has established that there is more information search activity in categories of high perceived risk (e.g., Beatty and Smith 1978; Dowling and Staelin 1994). Thus, we expect that search behavior for consumer-generated online product information increases with perceived risk.

Consumers are likely to consult with different types of people to inform themselves about different types of perceived risk (cf., Goldenberg et al. 2006). When a purchase is perceived to be high in performance or physical risk, it is likely that consumers turn for advice to experts who have knowledge in a particular product category (e.g., Rogers 1962). In contrast, when a purchase is perceived to be high in psychological or social risk, it is likely that consumers turn to social opinion leaders who can judge if the purchase will conform to the norms and tastes of an in-group (GfK Roper Consulting 2012). Finally, when a purchase is considered high in financial or convenience risk, it is likely that consumers will consult with market mavens who have a broad understanding of options and alternatives in the marketplace (Feick and Price 1987).

Experts, social opinion leaders, and market mavens are dispersed across different types of CMSEs (e.g., Forrester Research Inc 2003, 2009). Experts engage in specialized communities, maintain blogs or create videos to share their knowledge. Social opinion leaders are often found in consumers' in-groups on networks such as Facebook, Twitter and Pinterest. Market mavens have been found to be especially active in discussion forums and on review and rating platforms (Forrester Research Inc 2009). From the above discussion it follows that in the phase of pre-purchase activities, marketers can support consumers in their evaluation process by taking into account the type of perceived risk related to the pre-purchase and match that with an appropriate source of consumer-generated content. Therefore, we propose that:

P4 For products that have a high perceived performance or physical risk, CMSEs' influence on consumers' pre-purchase activities will be stronger in CMSEs that are frequented by experts compared with other types of social networks.

P5 For products that have a high perceived psychological or social risk, CMSEs' influence on consumers' pre-purchase activities will be stronger in CMSEs comprised of consumers' in-group (such as Facebook, Twitter or Pinterest) compared with other types of CMSEs.

P6 For products that have a high perceived financial or convenience risk, CMSEs' influence on consumers' pre-purchase activities will be stronger in CMSEs comprised of market mavens (such as rating and review Web sites and discussion forums) compared to other types of CMSEs.

The Role of CMSEs in the Purchase Decision Phase

In the purchase decision phase, consumers make important choices such as which specific product to buy, the retailer they wish to purchase from, the timing of the purchase, and other terms and conditions pertaining to the purchase. It is specifically in this phase of the decision process that consumers make an evaluation about the effort (i.e., money, time and energy) needed to acquire the product (Murphy and Enis 1986). If the effort is considered excessive in light of the sought benefits, consumers may choose not to proceed with a purchase. Häubl et al. (2010) have shown that consumers often make suboptimal decisions in this phase, especially when the product is complex and expensive (e.g., high effort products such as health insurance, holiday packages or digital cameras). Consumer-generated content in CMSEs can provide useful information that can reduce perceived effort and increase the likelihood of making a better decision.

As an example of such contexts, consider the sharing of information between consumers regarding sales and good deals, especially when marketer-generated sources of price information only provide incomplete information. This may be the case in situations of strong product differentiation, as well as dynamically changing prices. For instance, airlines, hotels, and rental companies employ yield management systems, which use dynamic pricing based on available capacity, predicted demand, and actual bookings (Talluri and Van Ryzin 2004). Information sharing via CMSEs can help consumers estimate future price trends, make successful bids in auctions, and identify good deals in the marketplace (Hinz and Spann 2008). Consumers may delay their purchase to a period of lower prices or bid the lowest acceptable price for the seller, thereby mitigating seller's ability to price discriminate. Thus, for high-effort products, we expect the role of CMSEs to be more pronounced.

Information from a consumer's social network, compared to user-generated content from anonymous consumers, is likely to be perceived as more trustworthy (i.e., much less likely to be manipulated) and personalized. Marketers have introduced various initiatives to facilitate information sharing within one's social network during the purchase phase by offering features (e.g., via live chat) that lead to the equivalent of a joint (offline) shopping trip in a shop or mall. Consider, for example, emerging CMSEs that allow a customer to 'try on' various outfits in an online store, take a photo, share that with her network, and get instant feedback about which outfit to choose. As independent and honest feedback of a friend who knows you personally is especially needed for high effort products, such CMSEs—especially if they have strong social ties—can be quite influential in consumers' purchase decision phase.

Another situation in which we expect the role of CMSEs to be strong is for purchases that are characterized by a *social component*. For example, in some instances, consumers make a group—as opposed to an individual—purchase. This may be the case if the product is to be consumed jointly (e.g., a family-size pizza, a joint movie or concert visit, a family vacation), or if buying in a group reduces the individual buyer's price, as is the case of group-buying sites such as Groupon (Kumar and Rajan 2012). In the context of such group-buying decisions, information sharing in CMSEs facilitates the coordination of consumers' decisions about what and where to buy, or to find each other for the purpose of group buying. Another example of a social purchase is gift giving, e.g., related to a friend's birthday. New services build on this social activity and enable consumers to send gifts (e.g., Facebook gifts), gift vouchers (e.g., Wrapp.com), or organize a group gift (e.g., eBay group gift) via CMSEs. These services are not confined to online retailers as they can also create

social commerce opportunities for offline retailers. As these social purchase situations are more likely to occur in one's social networks (with Groupon being a notable exception), CMSEs that are characterized by strong social ties represent ideal platforms for such purchases. Guided by the arguments presented above, we propose that:

P7 For products that are characterized by high effort (in terms of money, time, energy), CMSEs' influence on the purchase decision phase will be stronger compared with products that are characterized by low effort.

P8 CMSEs' influence on the purchase decision will be stronger for products that have a social component to their purchase and/or consumption (e.g., group purchase, group consumption, gift giving) compared with products that lack this social component.

P9 CMSEs' influence on consumers' purchase decision regarding high effort products, as well as for products that are purchased and/or consumed by a group, will be stronger in networks that are characterized by strong social ties compared to networks that are characterized by weak social ties.

The Role of CMSEs in the Post-purchase Phase

In the post-purchase phase, consumers may engage in a variety of activities that can be facilitated by CMSEs. After a purchase, consumers often compare their actual consumption experience with their expectations (Churchill and Suprenant 1982). Subsequently, consumers may communicate their satisfaction or dissatisfaction to other consumers via CMSEs, such as rating and review Web sites, tweets, blog posts, or the 'like' button on Facebook (Hennig-Thurau et al. 2004). Consumers may also actively refer a product to other members in their network, an activity that is increasingly facilitated by 'recommend to a friend' buttons. Finally, consumers may simply talk about or broadcast their purchase and consumption experiences in CMSEs without the explicit purpose of reviewing or recommending ('pins', 'check-ins', 'bought by', status updates, blog posts, tweets, etc.).

There are various factors that may drive consumers to review, rate, recommend, or simply talk about purchase and consumption experience in CMSEs (see Berger and Schwartz 2011). At the individual level, consumers' motivations could include validating an opinion, helping or educating others, sharing, bonding, and/or expressing pride associated with a specific purchase. We expect that consumers' post-purchase involvement in word-of-mouth, to validate opinion or to help or educate others, occurs for a broad range of product types. However, when consumers engage in word-of-mouth about products or consumption experiences for reasons of sharing, bonding, or pride, they are more likely to do so for some types of products compared to others.

Engaging in word-of-mouth contributes to the construction and expression of desired social identities (e.g., Kozinets et al. 2010; Wojnicki and Godes 2008). Extant research has shown that some products are better able than others to convey symbolic meanings used to create and define consumer's self-concept (McCracken 1988). Holt (2004) uses the notion of *identity value* to distinguish cultural and iconic brands from other branding approaches. His premise is that brands (and products) that act as performers or containers of identity will induce strong emotional bonds with the consumer as they provide resources to give expression to one's life project (Mick and Buhl 1992). Therefore, we posit that products that offer identity value are more likely to be the topic of a tweet, blog post, review or recommendation. By writing about a product or consumption experience that is high in identity value, the consumer signals her identity to her network. Categories of products that are high in identity value include automotive, technology, entertainment (movies, television, music), and lifestyle (beauty, fashion, food, sports, travel). The list of popular blog topics (technology, how-to blogs, health and fitness, entertainment and finance; see Webplanetfreaks 2011), as well as the list of most popular Pinterest categories (home, arts and crafts, style/fashion, and food; see RJMetrics 2012), underscore the importance of identity value as a driver of consumer expression in CMSEs.

Of course, not all products offer equal identity value to all consumers. Consequently, marketers who try to induce word-of-mouth by seeding consumers with free high-quality and high identity value products may be surprised to find that not all will automatically talk about products in their CMSEs, even when they are satisfied with the products. Kozinets et al.'s study (2010) of word-of-mouth in an online blogging community found that consumers would only talk about a product if it 'fitted' the character narrative that they had been constructing for themselves in their blogs. Thus, marketers who wish to facilitate CMSEs role in consumers' post-purchase activities should present their product offering in CMSEs with appropriate social identity characteristics. Furthermore, marketers of low identity value products (such as business-to-business products, insurance, or daily groceries) could increase the 'talkability' of their products—for example, by highlighting the products' social functions like bonding or sharing experiences. Popular viral videos such as "Will it Blend?", "Compare the Meerkat" and "Evian Roller Babies" demonstrate that even low identity products that offer high social value content can get reviewed and talked about in CMSEs. The above discussion results in the following, final propositions of our contingency framework:

P10 For products that have high identity value (e.g., automotive, technology, entertainment, lifestyle), CMSEs' influence on post-purchase activities will be stronger compared with products that have low identity value.

P11 Matching the identity value of product offerings with consumers' desired online social identities will enhance post-purchase activities in CMSEs.

P12 For products that offer high social value content, CMSEs' influence on post-purchase activities will be stronger compared to products that offer low social value content.

In summary, the over-arching argument that emerges from our contingency framework is that marketers should think strategically about how they wish to support each phase in the consumer decision process for social commerce purposes;

CMSEs' influence can be significantly stronger or weaker depending on the product and platform characteristics. In the next section, we will elaborate on the implications of our framework for future research and practice related to social commerce.

Implications for Research and Practice

While the phenomenon of social media has been attracting increasing attention among marketing scholars in the last few years, research examining the value-generating potential of social media has focused primarily on its potential effects on brands and customer relationships. Very little is currently known about social media's potential role in influencing transactions, supporting sales or even serving as a selling platform. This research gap persists despite "social commerce" being a hot topic among practitioners who are looking for ways to monetize (or at least justify) their investments in social media. This paper is among the first to offer an in-depth examination of the concept of social commerce, including a theoretical definition and contingency framework that assesses its potential to generate value in the marketplace.

Research Agenda

We base our discussion of the value-creation potential of social commerce on a broad conceptualization that covers the various phases of a consumer's decision-making process: need recognition, pre-purchase activities, purchase (transaction), and post-purchase activities, including consumption. Our contingency framework focuses on the moderating impact of two factors that can potentially influence the effectiveness of firms' social commerce initiatives: characteristics of the products and characteristics of the CMSE platform. The propositions offered in this paper span the four different phases of consumer decision-making and are intended to guide scholars and managers to develop a more comprehensive understanding of the potential of social commerce.

To build on the framework developed in this paper, we call for development of an active research program that seeks to measure the impact of social commerce across decision-making phases and social media platforms. The need for this research program is especially urgent due to the relative newness of social commerce phenomena (and social media in general), the dearth of empirical evidence, and the growing demand from managers for "numbers" that can justify the allocation of financial resources in social commerce initiatives (see Peters et al. 2013 for a discussion of the role of metrics in the context of social media). In this regard, there are many research opportunities regarding the role of social information on consumer decisions that take place both within and outside social networks.

First, to ensure that online social commerce initiatives receive sufficient managerial attention and resources, scholars have to provide compelling evidence that such initiatives influence consumer decision-making over and above other, established types of social information such as face-to-face (i.e., non-computer-mediated) word-of-mouth (e.g., Arndt 1967). As there can be substantial overlap in terms of the valence of information across (online and offline) environments, studies that do not account for the overlap between social commerce and other information channels (e.g., Rui, Liu, and Whinston 2013) may exaggerate the influence of social commerce and produce potentially erroneous results. In addition to the main effects, social information might also influence consumer decision-making through interactions with other channels. For instance, how is a consumer's decision impacted when multiple sources of social information are consistent or conflicting? And how does the amount of online social information (i.e., the "buzz" of a product) influence the value of other types of social information? The estimation of a 'true' social information effect (over and above other information sources) on consumer choice across various conditions would be valuable.

Second, when studying the impact of social information on decision-making, scholars should also account for potential differences between positive and negative information. As most of social commerce information is positive, some researchers have recommended that firms should only focus on such positive information and ignore negative information that is shared within networks (Wong, Sen, and Chiang 2012). Consumers' self-reports also stress that positive information in social networks is more influential (*The Hollywood Reporter* 2012). But is social information really that different from other word-of-mouth channels, for which a negativity bias has been established (e.g., Kanouse 1984)?

The third research opportunity relates to managerial attempts to stimulate transactions within social networks that have failed, leading some industry observers to conclude that transactions within social networks will not work at all (Eler 2011). Our contingency framework, however, points to the crucial role of moderating factors (e.g., product and platform characteristics). To keep our analysis tractable, we have focused primarily on the role played by product characteristics; issues related to platform-specific differences are noted but not discussed in detail. Given the substantial variation in content and functionality that exist across platforms such as Facebook, Twitter, and Pinterest, future research must focus more closely on the role played by inter-platform differences. Specifically, to get more definitive insights about the effects of product and platform characteristics, field experiments are needed which could systematically vary contingency factors and might be conducted in cooperation with companies on social network sites such as Facebook by using closed beta environments. Such designs might be hard to realize in labs, as social commerce requires that we account for the dynamics of social ties essential for social communities. The ecological validity of lab studies, in such contexts, may be questionable. A 'social transaction' metric that quantifies the sales increase (or decrease) that can be attributed to the social network environment would be useful.

Finally, whereas this research examines the different stages involved in social commerce processes, it is also important to understand how social commerce works across the different stages of the decision-making process. In recent years, there has

been increasing interest in mapping a consumer's "decision journey"—the different paths that eventually lead to, and result from, a transaction (Edelman 2010). For example, does social information gained from a Facebook "friend" make it more probable that a consumer will also purchase the recommended product at a Facebook commerce site? Or, in an increasingly multi-channel environment, do certain types of online social contact lead to transactions in offline brick-and-mortar stores? Although tracking consumers across decision stages is challenging, as consumers' decision processes are increasingly non-linear due to the growth of CMEs (Edelman 2010), research on social commerce can contribute to this promising research program.

Realizing the Potential of Social Commerce

How can companies build on the insights developed in this research and harvest the business potential of social commerce more effectively? We now identify some implications, building on our propositions, while acknowledging the differing roles of producers/manufacturers, retailers, and providers of social network sites (SNS).

Producers can use social commerce to increase their customers' value perception across the different phases of the decision-making process. They might strengthen consumers' awareness for their products by adding interesting and relevant content to CMSEs (e.g., YouTube videos). A more challenging strategy is to become a part of the consumers' social network; for example, by encouraging consumers to subscribe to the producer's YouTube or Twitter channel or Facebook brand page. If successful, this would allow producers to inform network members about potentially valuable products directly (e.g., through status updates). To enhance pre-purchase consumer experiences, social (personalized) information from Facebook friends and Twitter followers about a product can be embedded in the product site. Such an approach is actively supported by Android's Play market for apps, where consumers can see which of their friends are using and/or liking a particular app. Regarding the actual purchase itself, producers might benefit from offering highly diagnostic social information about a product, but also from moving the purchase opportunity closer to customers (e.g., on Facebook), assuming the product meets the conditions identified in our framework. Finally, producers can offer means that enable or even stimulate consumers to "share" a purchase with their respective social networks of friends.

Retailers often use collaborative filters for generating recommendations for customers based on other (usually anonymous) customers' behavior. These recommendations can be made more relevant to customers by increasing their social component. For example, a retailer can highlight selected purchase decisions from a consumer's personal network. A less demanding variant would be to include "likes" or other types of recommendations from a consumer's network on the respective product page, solutions that are already being implemented by some leading online retailers. The richness of such information, and its utility for facilitating the evaluative process, could be increased by allowing feedback between members of a social network. Based on information about what a consumer has looked for at a retail site, personalized ads within CMSEs can be provided. Regarding the purchase and post-purchase phases, retailers can use the same social commerce approaches we have identified for producers; in addition, the reviews from other social network members can be highlighted to the customer's social ties when they visit the respective product page. Brick-and-mortar retailers can also experiment with offering access to social media information to consumers via mobile apps on consumers' smart phones, thereby adding a social commerce feature to their offline channel.

For providers of social network sites (SNS) such as Facebook, Google+ and Twitter, our framework identifies platform characteristics (e.g., tie strength among members) that can influence the effectiveness of social commerce initiatives. Like retailers, SNS can use their members' social media communication and search behavior (within the SNS, but also outside of it, if such data is available through cookies) to generate more relevant product recommendations based on social information. They might also increase the SNS' overall value by providing producers and retailers rich data that can be used for need-oriented ads on the site. Product evaluation tasks might be supported by comparing social information for potential alternatives. With respect to transactions, a key challenge is to offer highly flexible "shopping mall" designs and payment systems that are accepted by network members. By using location-based services, SNS can integrate social and local information (e.g., by providing friends' recommendations regarding a restaurant in the close vicinity of a consumer's current location). Regarding post-purchase activities, SNS can also serve as mediators in the case of purchase problems, for instance by setting up an infrastructure for efficient problem resolution between buyers and sellers.

In closing, it should be noted that several recommended strategies described in this section assume that consumers will be willing to grant companies access to their personal information, not only about themselves, but also about others in their social networks. Obtaining such information, however, is fraught with many challenges and also points to the critical role of privacy issues. Companies will have to provide compelling arguments about how consumers will benefit from sharing such information, otherwise they face the risk that consumers will refuse to offer such information—or, in the worst case, consumers may even completely drop out of social networks. Trust is an essential pre-condition for information sharing to occur. Many leading firms appear to be are acutely aware of this, as indicated by the quick response of leading firms such as Facebook and Google to distance themselves from the controversial PRISM initiative—a federal program in the United States aimed at collecting individual-level data regarding activities in CMEs and telecommunication networks (Gellman and Poitras 2013). However, much more remains to be done in terms of understanding how firms collect, manage, protect, and leverage consumer data. Progress on that front will also advance a comprehensive research program on social commerce.

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