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► To cite this version:

Camille Grange, Izak Benbasat, Andrew Burton-Jones. A network-based conceptualization of social commerce and social commerce value. Computers in Human Behavior, 2020, 108, pp.105855 -. <10.1016/j.chb.2018.12.033>. <hal-03490730>

HAL Id: hal-03490730

<https://hal.science/hal-03490730v1>

Submitted on 22 Aug 2022

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Paper Title:

A Network-Based Conceptualization of Social Commerce and Social Commerce Value

Authors

Name	Position	Institution
Dr. Camille GRANGE (corresponding author) Camille.grange@hec.ca	Assistant professor	HEC Montreal, Montreal, Canada 3000 chemin de la côte Sainte-Catherine, H3T 2A7, Montréal, Canada QC
Dr. Izak BENBASAT	Professor	University of British Columbia, Vancouver, Canada
Dr. Andrew BURTON-JONES	Professor	UQ Business School, University of Queensland, Brisbane, Australia

Acknowledgment

This research has been funded by the Canada's Social Sciences and Humanities Research Council (SSHRC).

A Network-Based Conceptualization of Social Commerce and Social Commerce Value

Abstract

An increasing number of businesses and consumers talk about, invest, and engage in social commerce, which is a form of commerce mediated by social media. Despite the growing recognition and adoption of social commerce, its practice is often driven by fast-paced technological evolutions, hype, and ad-hoc business cases. In parallel, social commerce has been the target of limited scientific inquiries, and it remains ill conceived, which constitutes an obstacle to theory development and cumulative research. This paper addresses this issue by proposing a focus on *social commerce networks* (SCNs). SCNs refer to the digital network ties created and leveraged by consumers and business entities as they connect and interact among and between each other. Based on this definition, the paper develops a typology of key SCN structures, and it proposes a framework depicting the value that consumers and businesses can gain from creating and exploiting them. We explain how the proposed SCN concept, typology, and framework can guide future conversations on the topic of social commerce, and how they can provide researchers and practitioners with a better understanding of social commerce and its considerable value potential.

Key words: e-Commerce, social media networks, social commerce, social commerce networks, business value, consumer value.

1. INTRODUCTION

A multitude of online services exploiting the synergies between social media and e-commerce have developed in recent years. This has led to the emergence of online social commerce, defined broadly as a form of commerce mediated by social media (Wang and Zhang 2012). This phenomenon has been spurred by the addition of social networking capabilities (e.g., curating an online profile, connecting with ‘friends’) into the traditional digital environments used by consumers to learn, choose, and talk about products. Practical manifestations of social commerce include websites where consumers connect to each other and engage with brands and products (e.g., Goodreads) or with stores and services (e.g., Yelp). Several online vendors also incorporate social network features into their platforms (e.g., Netflix), and some social networking sites make it possible for businesses to connect and dialogue with consumers and other businesses (e.g., Facebook). In sum, a consumer, a company, a brand, a product, or any individual with a desire to self-promote or engage an audience (e.g., an actor, an athlete, an author) can be involved in social commerce. The multiplicity of possible actors and the variety of means via which they can engage with each other breed numerous opportunities together with new challenges and uncertain returns for social commerce initiatives (Baethge et al. 2016; Yadav et al. 2013; Zhang and Benyoucef 2016; Zhou et al. 2013).

Given the multifaceted expression of the social commerce phenomenon, its conceptualization in the literature has been inconsistent and is in need of clarification (Yadav and Pavlou 2014). For example, on the one hand, the label *social commerce* has often implied a focus on consumers and their shopping activities. In line with this view, Shen and Eder (2011) have defined social commerce as the “technology-enabled shopping experiences where online consumer interactions while shopping provide the main mechanisms for conducting social shopping activities” (p. 20). On the other hand, it has also been employed to refer to a seller-focused phenomenon. For instance, Stephen and Toubia (2010) have distinguished social commerce (networks of individual sellers) from social shopping (networks of consumers). The literature has also examined a variety of activities deemed to be important in social commerce, including consumer collaboration (Zhou et al. 2013), purchase decisions (Olbrich and Holsing 2011), the sharing of shopping experiences (Liang et al. 2012), and product information search (Goldenberg et al. 2012). The general issue associated with the

conduct of research about a relatively broad and emergent object of inquiry, such as social commerce, is that it makes it difficult to form a consistent view on its scope and distinguishing features, which ends up hindering theory development, operationalization, cumulative research, and practical inferences (Larsen and Bong 2016; Tractinsky 2018; Weber 2003). To address this concern, we advance a new unit of analysis that is based on the less abstract concept of *social commerce networks* (SCNs), which we define as the set of interrelated digital networks created and leveraged by consumers and businesses¹ as they connect and interact among and between each other.

Our inquiry into SCNs is driven by two research questions: (1) What are the distinctive characteristics of social commerce, and (2) What do these distinctive characteristics imply for the study of social commerce value? These questions and our approach for addressing them differ from previous work in several respects. First, we commit to a clear focus on networks as the engine of social commerce, based on the premise that networks are core enablers of social commerce and a driving force of e-commerce's future (Goldenberg et al. 2012; Liang et al. 2012; Sundararajan et al. 2013; Wang and Zhang 2012; Yadav et al. 2013). Second, we consider both consumers and business entities as key social commerce actors, and we examine their interdependencies. In SCN language, this means that we shall examine both multimodal network configurations (i.e., relationships between consumers and business entities) and unimodal ones (i.e., relationships among consumers or among business entities). Third, while the bulk of empirical work has concentrated on explaining consumers' adoption of social commerce (e.g., Hajli 2013, 2014; Liang et al. 2012; Shen et al. 2010; Shen and Eder 2011), we focus on value-related outcomes (from the perspectives of the two sets of actors). Finally, we adopt a theory-driven, deductive approach to conceptualizing SCNs and to generating propositions about how and why consumers and businesses can obtain value from social commerce and what roles SCNs play in that regard. That is, we start from specifying and justifying explicit premises about the key distinguishing aspects of social commerce (i.e., it relies on digital network structures into which both consumers and business entities act in an interdependent fashion) and about how value is obtained (i.e., based on the use of digital platforms that support the development and exploitation of SCNs).

¹ Business entities may take the form of products, services, stores, brands, events, celebrities, etc.

By exposing and illustrating what is meant by SCNs and by articulating the rationale for using it as a foundation, the present paper suggests a new way of conceptualizing social commerce as well as a new model to guide investigations about the drivers of social commerce value. In sum, this study contributes to the literature on social commerce (e.g., Baethge et al. 2016; Baghdadi 2016; Busalim and Hussin 2016; Chen and Shen 2015; Hajli 2013, 2015; Liang et al. 2012; Liang and Turban 2011; Yadav et al. 2013; Zhang et al. 2014; Zhang and Benyoucef 2016; Zhou et al. 2013) and on the nature and outcomes of digital networks (Kane et al. 2014; Oinas-Kukkonen et al. 2010; Sundararajan et al. 2013) especially networks that are developed and exploited for e-commerce (Goldenberg et al. 2012; Stephen and Toubia 2010; Yadav et al. 2013). The propositions associated with the framework can be used by researchers to derive theoretical models scoped according to a specific facet(s) of social commerce value that they are most interested in. They can also be used by practitioners to reflect on and orient their social commerce initiatives.

The rest of the paper is organized as follows. We first explain the need and rationale behind our choice of a network lens to approach the study of social commerce. We then define SCNs, taking into account their dual nature as networks that are digital, and present a typology of SCN structures. Next, we develop a framework and a set of twelve propositions about how and why the development and exploitation of SCN structures by consumers and business actors can yield business value (i.e., transactional and relational benefits) and consumer value (i.e., instrumental and expressive benefits). Finally, we discuss the contributions of the study, together with its limitations and the opportunities for extending it.

2. A NETWORK PERSPECTIVE ON SOCIAL COMMERCE

Recent literature reviews indicate that there has been insufficient research devoted to conceptually teasing out the distinctive properties of social commerce (Baethge et al. 2016; Busalim and Hussin 2016; Salvatori and Marcantoni 2015; Zhang and Benyoucef 2016). One reason for this shortcoming is that social commerce platforms and business models have developed at a fast pace driven by technological developments, such as social network portability (the ability to carry users' profiles and social graphs across sites), and behavioral shifts, such as online users becoming heavy curators of product-related content (Chipp and Chakravorty 2016; Hall and Zarro 2012). Although information technologies (ITs) are prone

to rapid technical and usage evolutions, social media in general and social commerce in particular have grown at a speed rarely seen before. For example, Pinterest became the fastest site ever to break through the 10 million unique visitor mark². Together with fast pace, the lack of an established leader and of standardized practices in the domain of social commerce are also likely to have contributed to stymying conceptual work.

A detrimental impact of this lack of theoretical development is that it renders difficult the identification of the distinctive attributes of social commerce that are worthy of scrutiny and the conduct of reliable and forward-thinking investigations (MacKenzie 2003; Suddaby 2010). Weber (2003 p. v) articulated this issue nicely by mentioning that “*achieving clarity about the phenomena we are seeking to explain or predict is often a time-consuming, difficult task. Unless we achieve this clarity, however, we cannot build high-quality theory*”. Weber’s statement is echoed by other scholars who have called for theories specifying constructs and relationships tapping into unique aspects of the investigated phenomena, so that more accurate explanations can be obtained (Evermann and Tate 2009; Grover et al. 2008). In sum, the key message is that researchers need to think carefully about what is theoretically distinct and interesting about the type of IT they investigate (Evermann and Tate 2009; Majchrzak 2009; Treem and Leonardi 2012). In this case, we need to think about what is distinctive and unique about social commerce.

Social commerce differs from traditional e-commerce and from online social network sites (SNSs) in that it enables consumers to form digital relationships *with each other* (e.g., ‘following’ or ‘friending’ others) as well as *with commercial entities* such as products, brands, or stores (e.g., ‘reviewing’ a product). SNSs support the representation, nurturing, and exploitation of the former type of relationships (boyd and Ellison 2007). In turn, e-commerce has traditionally focused on the latter type of relationships (consumers and products/vendors). By supporting both, social commerce facilitates new types of activities that are likely to be impossible or less effective via other channels (e.g., searching for items that friends have liked). In addition, while social commerce shares similarities with online communities, such as those in which consumers connect around products (Kozinets 1999), it is different. Although communities usually involve social interactions between members (e.g., by using

² <http://techcrunch.com/2012/02/07/pinterest-monthly-uniques/>

forums or chats), they generally do not rely on formal social connections (e.g., online friendships) to operate (e.g., Benlian et al. 2010; Blanchard and Markus 2004; Brown et al. 2007; Kim et al. 2012; Ma and Agarwal 2007).

The summary by Wang and Zhang (2012) of the social commerce literature yielded the observation that “*social networks are central to social commerce*” (p. 17). We agree with this as well as with others who have also considered networks as central to social commerce (Goldenberg et al. 2012; Hennig-Thurau et al. 2013; Huang and Benyoucef 2013; Stephen and Toubia 2010; Yadav et al. 2013). Therefore, we consider that a theoretically distinct aspect of social commerce is that it relies on digital network structures into which both consumers and business entities act in an interdependent fashion. Table 1 summarizes this view.

Table 1. A Comparison between Social Commerce and Related Phenomena

	E-commerce sites	Social network sites	Online communities
Differences with social commerce	They do not record, display, and enable traversing social connections.	They do not focus on products, and do not leverage a network in which people and businesses/products both connect.	They do not necessarily focus on products and do not require users to connect.
Similarities with social commerce	They often enable user-generated content (e.g., reviews). Users may share common product interest.	They enable their users to have a profile, to connect to friends, and traverse	They enable their users to gather around a common domain of interest.

3. SOCIAL COMMERCE NETWORKS

While social network research relies on the *network* as its focal unit of analysis (Borgatti and Halgin 2011; Burt 1980; Coleman 1988; Kilduff and Brass 2010; Lin 1999; Wasserman and Faust 1994), information systems research tends to focus on *digital artifacts* (Benbasat and Zmud 2003; Faraj and Azad 2012; Leonardi 2010; Markus and Silver 2008; Orlikowski and Iacono 2001; Robey et al. 2012). Because social commerce relies on *digital networks* (i.e., not *just any networks* and not *just any digital artifact*), we draw on both research streams to specify SCNs as a new unit of analysis. In doing this, we hope to generate more interesting and accurate insights than if a single view was to be adopted (Okhuysen and Bonardi 2011).

3.1 The Nature of SCNs

3.1.1 SCNs as Social Media Networks

We consider social commerce networks to be a form of *social media networks* (SMNs), and as such, we distinguish them from *social networks* and *social network sites*. The former refer to the arrangements of social ties between human beings (Borgatti et al. 2009). The latter refer to digital platforms that represent real-life social ties and provide functionalities to help users nurture and leverage them (boyd and Ellison 2007). Similar to social network sites, social media networks (SMNs) designate digital platforms, but in contrast to them, they are thought to be able to support more than just *representations* of real life social networks (Kane et al. 2014). That is, SMN nodes are not restricted to representing human actors, and the ties between the nodes do not need to represent just social connections; for example, a tie could represent the opinion of someone about an object of interest such as a company, a brand, or a product. In other words, our ontological stance on SMNs is to view them as *conceived* networks, composed of nodes and ties whose representation and meaning are defined by designers and, conceivably, by a researcher's theoretical and analytical purposes (instead of being treated as a social reality) (Borgatti and Kidwell 2010; Laumann et al. 1989).

3.1.2 SCNs as Co-created Digital Artifacts

SCNs are the result of two factors. One factor is design. For example, a social tie between two users relies in part on whether the digital platform offers the features necessary to capture and record the existence of social ties (Baghdadi 2016). Another factor is usage. For example, one or two users need to use the relevant platform features to enact the aforementioned social tie. The decisive role of users highlights that, similar to most other types of SMNs, SCNs rely on *secondary design*, which consists in users modifying a technology in the context of use (Germonprez et al. 2011). What this means is that SCNs rely on a piece of software that is designed with functionalities enabling users to create network structures. Users create such structures when they exploit the functionalities that denote their intention to 'connect' with someone, 'post' a status update, or 'check-in' to a store. In sum, SCN structures are co-created, for they rely on primary design (lead by the platform provider) as well as secondary design (lead by end-users).

3.2 A Typology of SCN Structures

3.2.1 SCN Actors

Commercial relationships involve exchanges between parties, often considered to be consumers and business entities (Bagozzi 1975). The spectrum of possible configurations for the conduct of commercial exchanges relies on the actors being involved (for example, Business-to-Consumers (B2C), Business-to-Business (B2B), and Consumer-to-Consumer (C2C)). Thus, our proposed perspective on social commerce considers both types of actors.

Consumers are individuals with an interest in certain goods and services, who interact with businesses via different touch points (e.g., a corporate website, a social media profile). The business entities which consumers interact with can take different forms including a corporation (e.g., Dell Inc.) or part of it (e.g., Dell Enterprise), a brand or a product line (e.g., Dell Inspiron), a product or service (e.g., Dell Inspiron 15R Touch), and a brand ambassador (e.g., Lynsey Sharp, an ambassador for Dell at the 2014 Commonwealth Games). The large diversity via which business entities can manifest is illustrated via examples in ten different industries in Table 2. It is an important to highlight diversity because it suggests that it is possible for Dell, or any other corporation for that matter, to create and leverage multiple presences and relationships (Weinberg et al. 2013). Businesses entities may nurture multiple virtual identities including the *brands* they own, the *ambassadors* that represent their brands, or the *products* they market. For example, Google Chrome (i.e., a product) and Google Inc. (i.e., a corporation) have distinct identities on Facebook, and so do HyperDunks shoes (a product), Michal Jordan (an athlete), Nike (a brand), or in another domain, the Titanic movie (a product), Paramount Pictures (a company), and Leonardo DiCaprio (an actor).

Table 2 also presents examples of transactions in the illustrated contexts (e.g., downloading a software, buying a pair of shoes, watching a movie). Although transactions constitute key events in a commercial relationship, they are part of a larger lifecycle (Ives and Learmonth 1984; Yadav et al. 2013), which also includes pre-transactional activities, such as when a consumer follows and messages a company to request information about a soon-to-be released product or when a store shares promotions with its fans, and post-transactional events, such as when a consumer tweets about a newly purchased outfit, or when a rock band shares pictures of its latest concert (Saundage and Lee 2011).

Table 2. Examples of Business Actors and Transactions in Social Commerce

Type of products and services	Business Actors			Examples of commercial transactions
	Institutions (e.g., company, brand, store)	Product or brand ambassadors	Products or services	
Home appliances	Nestlé (company) Nespresso (brand)	George Clooney	Cityz coffee machine	Buy Nespresso Cityz coffee machines
Garments	Nike, Chicago Bulls, NBA, Footlockers	Michael Jordan	Nike HyperDunks shoes	Buy Nike shoes Buy at Footlocker store
Beauty products	Chanel	Marilyn Monroe	No.5 perfumes	Buy Chanel No. 5
Entertainment (movie)	Paramount pictures	Leonardo di Caprio	Titanic movie	Go see Titanic
Entertainment (sport)	Nike, FC Barcelona	Lionel Messi	FC Barcelona football games	Go attend FC Barcelona-Real Madrid
Information good (music)	Rough Trade Records, Arcade Fire	Win Butler	Arcade Fire's latest album	Download or stream Mp3s
Information good (software)	Google Inc.	Larry Page, Google evangelists	Chrome, Adwords	Download/use Google Chrome or Adwords software
Information good (books)	Levine Books	J.K Rowling	Harry Potter novel	Download or buy Harry Potter
Food and beverage	Coca Cola (company), Diet Coke (brand)	Pelé	Diet Coke cola	Buy Diet Coke cola
Transportation services	Uber	Uber brand ambassadors	Uber transportation	Use Uber to book and pay for taxi services

3.2.2 SCN Ties

In the literature on traditional interpersonal networks, several categories of ties have been examined, including ties representing formal roles (e.g., being a teacher/student of), evaluations (e.g., liking someone else), transfers of goods (e.g., lending or borrowing something), and transfers of non-material resources (e.g., exchanging information). Social ties can be distinguished according to content and direction. As for content, some ties tend to involve continuity over time while others appear more transient (Borgatti et al. 2009). The

former have been referred to as backcloth ties and the latter as traffic ties (Atkin 1977; Borgatti and Kidwell 2010). Backcloth ties constitute the latent, foundational infrastructure of a network; they represent stable relationships among nodes (Haythornthwaite 2000). In contrast, traffic ties are the channels through which resources flow between nodes when they interact. As for direction, network ties can be incoming (e.g., when a ties marks the reception of an invitation to connect) or outgoing (e.g., when a tie marks the sending of an invitation to connect) (Garton et al. 1997).

In summary, the literature suggests that two orthogonal aspects can help specify the nature of network ties between shoppers and businesses in social commerce: (i) *content*: relations (i.e., backcloth) or interactions (i.e., traffic), and (ii) *direction*: incoming or outgoing. We drew on these ideas to develop a typology of SCN structures, that is, a set of network ties that can be expected to manifest in social commerce contexts. The typology (Figure 1) offers a view of social commerce that accounts for a distinctive aspect of the phenomenon, that is, its reliance on network ties between consumers and business entities. The underlying meanings of those ties are further exemplified in Table 3.

Figure 1. Proposed Typology of Network Ties Between Social Commerce Actors

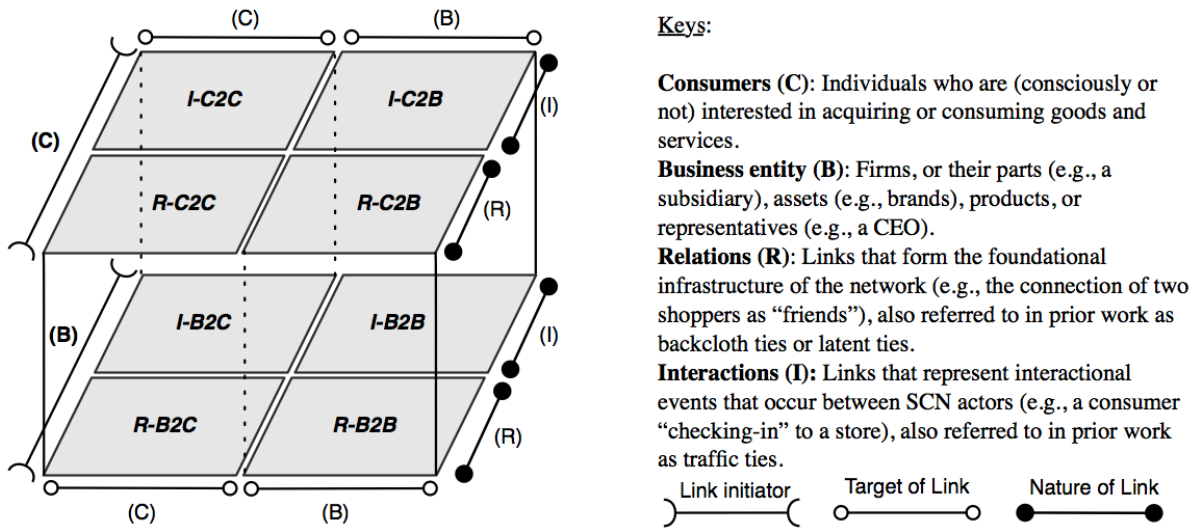


Table 3. Examples of Network Ties in Social Commerce Networks

Ties initiated by a <u>consumer</u>	Ties initiated by a <u>business</u> entity
R-C2C (<i>relations among consumers</i>) Becoming friend with or following another consumer.	R-B2B (<i>relations among business entities</i>) Becoming friend with or following a brand or store.
R-C2B (<i>relations with business entities</i>) Becoming friend with or following a brand or store.	R-B2C (<i>relations with consumers</i>) Becoming friend with or following a consumer.
I-C2C (<i>interactions among consumers</i>) Congratulating a fellow consumer, sharing a product experience with consumers	I-B2B (<i>interactions among business entities</i>) Suggesting complementary products to another brand, commenting on a new product launch.
I-C2B (<i>interactions with business entities</i>) Reviewing a product, checking-in to a store, sending a message to a company.	I-B2C (<i>interactions with consumers</i>) Advising, rewarding, servicing, sending a coupon to customers.

Key: R: relations; I: interactions; B: business entity; C : consumer

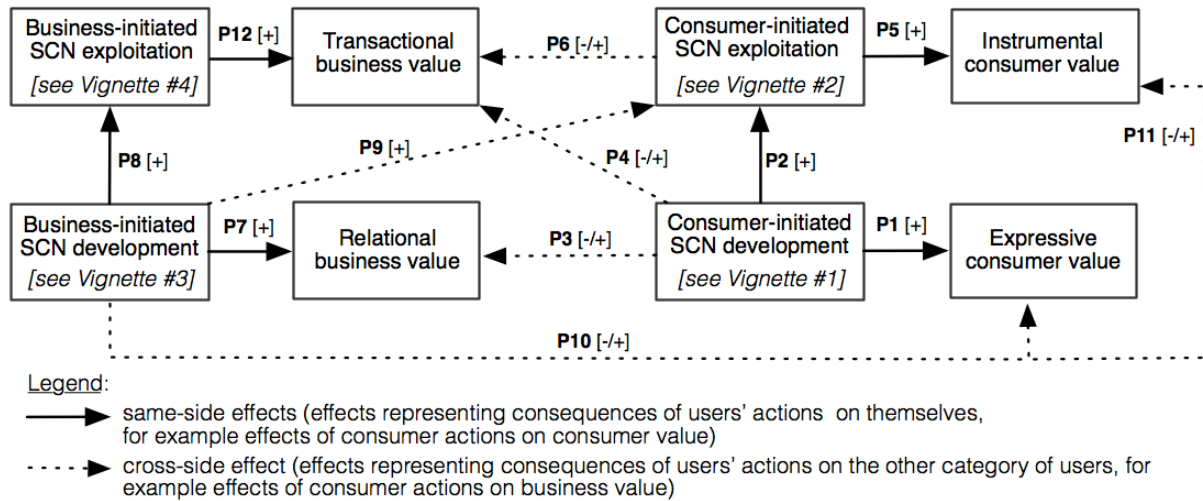
4. DERIVING VALUE FROM SOCIAL COMMERCE

The previous sections specified that SCNs are kinds of social media networks, that they result from both primary and secondary design, and that they can combine eight different types of network structures (per Figure 1). We now build on these ideas to examine how the creation and exploitation of SCN structures can create value for consumers and business entities.

4.1 Overview of the Conceptual Framework

The proposed framework (Figure 2) is the result of a deductive theory development process that has relied on three premises. First, because two types of actors take part in SCNs (consumers and business entities), two corresponding targets of value creation are included (consumer value and business value). Second, because IT use constitutes the key proximal factor explaining the benefits that an IT can provide (Barki et al. 2007; Orlikowski 2000), we consider that actors engage in IT-mediated value-generating activities via the development and exploitation of SCN structures. This view has been corroborated in many other contexts, such as mobile (Wiredu 2007), enterprise (Kane and Alavi 2008), office (Burton-Jones and Straub 2006), social networking (Ellison et al. 2011), and e-Commerce (Xiao and Benbasat 2007). Third, given that the actors are interdependent, they may experience direct consequences from their own actions (what we term ‘same-side effects’), as well consequences from others’ actions (what we term ‘cross-side effects’).

Figure 2. A Conceptual Framework of Social Commerce Value



4.2 Constructs Definition

4.2.1 SCN Exploitation and Development

Consumer-initiated SCN development is defined as consumers' use of a social commerce platform to connect with other consumers and interact with them (i.e., by developing R-C2C and I-C2C structures, respectively), as well as to connect with business entities and interact with them (i.e., by developing R-C2B and I-C2B structures, respectively). Vignette 1 illustrates this construct—and the associated SCN structures—via a fictional scenario whereby a consumer who is interested in books engages in SCN development. In turn, *consumer-initiated SCN exploitation* refers to consumers' use of a social commerce platform to leverage SCN structures and access the resources embedded within these structures (see Vignette 2).

Vignette 1. Example of Consumer-initiated SCN Development

Context	John created a profile on Socialreads.com last year. He wants to share his passion for books and to know what his friends like and what books they recommend.
Scenario	John started by <u>friending</u> Mary, another book fan and user of socialread.com. He also decided to <u>follow</u> his favorite bookstore (Powel bookstore in Portland) and authors (J.K Rowling and Patricia Cornwell), which have an online profile on the site. Lately, John has also started to use the website to <u>review</u> books he read, and to <u>check-in</u> at his City Library when he goes there. He had also used the site to <u>comment</u> on his friends' reads.
SCN Structures	John creates the following SCN structures: R-C2C (friending), R-C2B (follow), I-C2B (review, check-in), and I-C2C (comment).

Key: SCN: social commerce networks; R: relations; I: interactions; B: business entity; C : consumer

Vignette 2. Example of Consumer-initiated SCN Exploitation

Context	Same as in Vignette 1
Scenario	John <u>consults</u> the most recent book reviews that his good friend Mary wrote in the last month. He also <u>visits</u> the profile page of J.K. Rowling, a very popular author that he follows. He wants to get to know more about her novels and to read the comments left by other users on her page. John is also <u>notified</u> when J.K. Rowling shares her newly published book on her profile page.
SCN Structures	For each action, John leverages multiple SCN structures: R-C2C and I-C2B (consulting friends' book reviews), R-C2B and I-C2B (visiting the profile page of an author being followed and reading other readers' comments), and R-C2B and I-B2C (being notified that an author being followed shared something with her followers).

Key: SCN: social commerce networks; R: relations; I: interactions; B: business entity; C: consumer

Business-initiated SCN development refers to the use of a social commerce platform by a business entity to connect with other relevant business entities and with consumers (i.e., by developing R-B2B and R-B2C structures, respectively) and to sustain relationships with both by interacting with them (i.e., by developing I-B2B and I-B2C structures). Vignette 3 illustrates this construct using a scenario where a business entity (a coffee shop) engages in SCN development activities. *Business-initiated SCN exploitation* is a business entity's use of a social commerce platform to leverage SCN structures and access the resources embedded within these structures. This could manifest via the monitoring, finding, and eventually learning about of relevant network actors. The types of SCN structures that business entities may leverage are illustrated in Vignette 4.

Vignette 3. Example of Business-initiated SCN Development

Context	BestBrew (BB) coffee shop (via Justin, its Seattle-native owner) started using the SocialCup.com site last year to enhance its visibility and to get to know more about consumers' tastes and preferences.
Scenario	Justin started <u>friending</u> influential consumers like Mary. He also decided to <u>follow</u> another coffee shop (GoodBrew) and a coffee brand (48 th Parallel) located nearby. Two days ago, he <u>wrote a note</u> on 48 th Parallel' profile page to support its latest released beans. He also <u>apologized</u> to a consumer who had shared a bad experience at the shop. Justin often <u>shares promotions</u> with those who follow BB on SocialCup.com; today he gives out a free muffin for each cup of BB's new roast bought.
SCN Structures	BB creates the following SCN structures: R-B2C (friending), R-B2B (follows), I-B2B (wrote a note), and I-B2C (apologized, shares promotions).

Key: SCN: social commerce networks; R: relations; I: interactions; B: business entity; C: consumer

Vignette 4. Example of Business-initiated SCN Exploitation

Context	Same as in Vignette 3
Scenario	Justin <u>consults</u> the shop's news feed a few times a day as it displays what the other folks that the shop follows (e.g., consumers, stores) have shared (e.g., opinions, questions). He has also set up an alert to <u>get to know</u> when a follower writes a post on BB's profile page. Finally, he uses the network intelligence tools offered by the platform to <u>monitor</u> the level of engagement of his community of followers with the content he has shared with them (e.g., how many people consulted it and shared it with their friends).
SCN Structures	For each action, Justin leverages multiple SCN structures: I-C2C, I-C2B, and I-B2B (consulting a newsfeed listing the activities of the others that he follows), R-C2B and I-C2B (getting to know when a follower reaches out), R-C2B, I-B2C, and I-C2B (monitoring his followers' response to information he shares with them).

Key: SCN: social commerce networks; R: relations; I: interactions; B: business entity; C: consumer

We conceive consumer value via two constructs. *Instrumental consumer value* refers to the effectiveness with which consumers' purchase-related activities are supported, from need recognition to post-purchase (Cenfetelli et al. 2008; Ives and Learmonth 1984). *Expressive consumer value* refers to the effectiveness with which consumers can satisfy psychological needs related to self-expression. Both instrumental and expressive benefits have been used to capture the value that users expect to obtain from using digital a medium (Smith and Colgate 2007; Stafford et al. 2004; Swan and Combs 1976). Business value is captured via two constructs as well. *Transactional business value* is the effectiveness with which businesses generate leads or sales, and *relational business value* is the effectiveness with which relationships with stakeholders are developed and maintained. These two dimensions are complementary, for successful organizations often strive to leverage synergies between short and long term business value (Fuan Li and Nicholls 2000; Rao and Perry 2002).

4.2 Propositions

4.2.1 The Value Created by Consumers Developing SCNs (P1, P2, P3)

Consumer-initiated SCN development can generate expressive value by satisfying consumers' psychological needs related to self-expression. Self-presentation is the projection of a desired image to oneself and to others; it is a self-expressive act and a common aspect of social life (Goffman 1959). Unsurprisingly, self-presentation is prevalent on the Web, especially in settings where individuals are exposed to an audience such as online communities (Ma and Agarwal 2007), the blogosphere (Bortree 2005), and SNSs (Krämer and Winter 2008; Toubia

and Stephen 2013). In parallel, consumption is a self-defining behavior (Schau and Gilly 2003). Thus it constitutes a powerful context for signaling and evaluating one's identity (Slama and Wolfe 1999). In fact, it is common for consumers to use the products they possess or the brands they associate with to communicate their self-identities (McCracken 1990; Mittal 2006). Accordingly, by engaging in social commerce, consumers can satisfy their need to develop, evaluate, maintain, and enhance their identity as consumers. As we will explain next, for self-presentation to be most effective in such context, consumers need to ensure that they can say and show what they want to say and show (i.e., convey the right meaning), that they can control who is part of their audience, and that they can assess their reach and influence on others (Goffman 1959). In other words, social commerce platforms that enable users to express the right *semantic* meaning in their messages, to have *authority* to determine who can access their content, and to obtain *feedback* from their audience will be better-equipped to facilitate the realization of expressive value from developing SCNs.

First, with respect to expressing the right *semantic* meaning, previous work on impression management suggests that individuals construct their identity with care and attention (Goffman 1959) to convey an authentic or ideal representation of their self (Higgins 1987). In contrast to offline contexts, self-presentation via SCNs is both enabled and bounded by the representation methods afforded by the underlying digital platforms, including linguistic or paralinguistic representations (e.g., emoticons) and graphical representations (e.g., images). In addition, individuals like to adopt a variety of strategies to construct their identities, using claims that can be highly explicit (e.g., by using narratives), implicit (e.g., by using visuals or symbols), or a mixture of both (e.g., by enumerating tastes and preferences) (Zhao et al. 2008). Therefore, consumers' self-presentation via SCNs is likely to be most effective when the underlying digital platform provides a rich set of features for customers to convey the meaning they deem just right, including expressing achievements (e.g., choosing a product), tastes (e.g., writing a product review), and creative efforts (e.g., staging a product in a photo).

Second, self-presentation is likely to be more effective when SCN platforms afford *authority*, that is, when consumers can control the visibility of their contributions in the network. This is because the self exists only in the context of others, and so having and managing an audience is key to self-presentation (Markus and Kitayama 1991). Goffman (1959) explained that self-presentation is highly contextual, for it is based on a specific setting

with an anticipated audience. Yet, it is harder to know and to control an audience in an online setting compared to offline, because spatial boundaries in the former tend to be more fluid. Furthermore, digital traces tend to persist over time (Palen and Dourish 2003). Therefore, self-presentation requires a process of regulation between disclosure and withdrawal (Altman 1975), and this can be managed by controlling and adjusting access rights, a strategy often used by social network sites where audience management is a critical matter (Tufekci 2008).

Third, the evaluation and maintenance of consumers' self-views depends upon obtaining *feedback* from their audience, for it can facilitate self-verification and self-enhancement (Sedikides 1993). Self-verification consists in validating that what others perceive is consistent with what one aims to convey, a process that feedback mechanisms can help support. For example, giving consumers the possibility to know what their audience thinks about what they have shared can help them better understand if their intended message was well understood. That is, it can help consumers to verify the impression that they aim to 'give off' to others (Ma and Agarwal 2007), and to provide them with a sense of coherence and security (Goffman 1959). Self-assessment involves improving the positivity of one's self-concept, which can be supported by providing consumers with some level of feedback on the reach and impact of their identity claims. For example, when consumers observe that numerous peers have consulted their product reviews, their self-worth is boosted (Harter et al. 1998), and their feeling of integration within a social group is aroused (Blanchard and Markus 2004). Moreover, highlighting positive feedback obtained in response to one's contributions while protecting against negative feedback would also support self-enhancement. In that respect, simple mechanisms such as indicating who in the network 'liked' one's list of favorite products can stimulate self-esteem, a driver of further self-disclosure in SNSs (Christofides et al. 2009). In sum, consumers developing SCN structures to convey a desired impression to others benefit from knowing how they influence their audience. As a result, we propose P1.

<p>P1: Consumer-initiated SCN development contributes positively to expressive consumer value especially when the underlying digital platform enables consumers to express themselves via meaningful <i>semantic</i> representations (P1a), to have <i>authority</i> over who is part of their audience (P1b), and to get <i>feedback</i> from their audience on their contributions (P1c).</p>
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An auxiliary outcome of consumer-initiated SCN development is social capital, that is, an investment in social relationships that could create value in the future. For example, consumers can benefit from being connected to several other peers who have posted relevant product opinions when they engage in network exploitation in the future. They can also mobilize social capital by directly requesting informational resources (Ellison et al. 2014; Morris et al. 2010). In other words, it pays off later in time, if not immediately, to build and nurture a solid set of social ties, an idea largely supported in social network research (e.g., Duck 1991; Lin 1999; Rabby 2007). Therefore, SCN development can be viewed as an ‘enabler’ of SCN exploitation.

P2: Consumer-initiated SCN development enables consumer-initiated SCN exploitation.

Finally, we posit that consumers’ SCN development activities can influence relational and transactional business value. Several consumers like to share their experiences after buying a new product and to explain whether and how it fulfilled their expectations (Ward and Ostrom 2006). When consumers have an upsetting experience to report, they can use social media to connect with the business entity in charge to ask for an explanation or compensation, or worse, to vent negative feelings (Leung 2013). Negative word-of-mouth can become online firestorms and prove highly detrimental to a business’ image and relational capital (Pfeffer et al. 2014) as well as subsequent purchase behaviors (East et al. 2016; Kim et al. 2016). In contrast, when consumers have a great experience with a business, they are likely to reciprocate by expressing their appreciation (Gouldner 1960) and to recommend the business to other consumers (Kollock 1999). In this case, consumers can help a business to generate more sales (Schivinski and Dabrowski 2016) and to be considered more trustworthy or competent by other potential customers. In sum, when consumers engage in SCN development, they can either harm or benefit business entities both in the short term (by impacting transactional value) and in the longer run (by impacting relational value).

P3: Consumer-initiated SCN development can influence relational business value either negatively (P3a) or positively (P3b) based on the experience the consumer had with the business.

P4: Consumer-initiated SCN development can influence transactional business value either negatively (P4a) or positively (P4b) based on the experience the customer had with the business.

4.2.2 The Value Created by Consumers Exploiting SCNs (P5, P6)

Consumers can exploit SCN structures to get support at different points in time during their purchase journey. Several models of customers' support life cycle have been developed and used in prior research (e.g., Cenfetelli et al. 2008; Court et al. 2009; Edelman 2010; Ives and Learmonth 1984; Yadav et al. 2013). While these models differ in their details (e.g., the number of stages that they consider as part of the life cycle), they concur in their emphasis on both pre-purchase (e.g., searching and assessing alternatives) and post-purchase (e.g., getting service). As we explain next, exploiting SCNs can yield substantial instrumental value in both stages, especially when the underlying digital platform offers *product signaling* and *decision-aid* features that can help consumers identify and evaluate products, and when it offers mechanisms that facilitate *reaching out* to relevant network actors (i.e., consumers, business entities) after a purchase has been made.

Regarding *product signaling*, we note that social navigation is the identification and evaluation of information that is being guided by the activities of others within a network (Munro et al. 1999; Svensson et al. 2005). In online settings, social navigation can be unobtrusive as it does not necessitate the action of others (Ellison and boyd 2013). Social navigation is expected to be most effective when the "others" guiding the search are most relevant. SCNs facilitate relevance because social relations are self-determined (i.e., they are chosen by users vs. decided by the platform) and connected users likely to be familiar and share some degree of similarity (McPherson et al. 2001). In addition, the product-related signals that peers communicate to others and that can represent explicit endorsements (e.g., 'recommends', 'favorites') or more implicit endorsement (e.g., 'pin', 'like', 'check-in', 'reviewed') should be salient and easy to interpret. Indeed, accessing information from peers who have a common ground (e.g., friends) or who share similar interests can be very helpful to assess the fit and value of a product (Duhan et al. 1997). In sum, we expect that consumers will be especially well-supported in their product screening and evaluation activities when the social commerce platforms they use to exploit SCNs incorporates *signals* that leverage the underlying network structures. For example, this capability can take the form of a newsfeed that displays the product endorsement signals of others to whom one is connected to help orient product search toward a reduced set of options advocated by relevant others.

In addition to supporting the screening and identification of relevant product alternatives, SCNs can be instrumental to the product purchase life cycle by providing functions that support decision-making. Consumer decision-making in e-commerce can be assisted by incorporating supporting features, such as product recommendation agents, that can help customers to filter, to compare, and to decide among product alternatives (Xiao and Benbasat 2007). The intrinsically social nature of SCNs offers an additional opportunity to participating consumers: they can obtain direct help from others in the network (Bilandzic et al. 2008). To achieve this, SCN platforms need to incorporate *decision-aid* features that leverage customers' relations and channel communications. Such features can be used by consumers to ask those to whom they are connected their opinion on a product, to request their participation in a vote between product alternatives, or to submit private requests to specific customers for advice on a product selection dilemma.

Finally, consumers' exploitation of SCNs can yield utilitarian value by helping consumers *reach out* to other SCN actors who can contribute to a successful post-purchase experience. These actors can be business entities from whom purchases have been made or fellow consumers who have acquired a similar product. For example, a consumer may wish to reach out to the corporation she has bought a product from to get some help on various matters such as how to best use the product or how to implement return policies. Similarly, post-purchase can be improved when customers are able to leverage their relations with fellow consumers to isolate those most capable of providing some assistance or any other valuable information regarding the product and its use.

P5: Consumer-initiated SCN exploitation contributes positively to instrumental consumer value especially when the underlying digital platform enables consumers to notice *signals* referring to products recommended by relevant peers (P5a), (ii) request *aid* from relevant peers to help assess and choose products (P5b), and (iii) provide effective means to *reach out* to other consumers or business entities that can assist the post-purchase experience (P5c).

We also expect that consumer-initiated SCN exploitation will have an effect on transactional business value, and that this effect will be positive or negative depending on what features consumers use for SCN exploitation. This proposition is based on the idea that online shoppers' appropriation of SCN exploitation features can influence their likelihood of making a purchase (a correlate of transactional business value) because exploitation features can guide shoppers to products directly or indirectly. In other words, these features vary in

their ability to support different types of search behavior, from highly targeted, goal-directed search behavior to more exploratory, knowledge building browsing (Moe 2003). This mechanism is supported in the literature. Olbrich and Holsing (2011) found that the use of user-provided tags and ratings by online shoppers had a positive influence on ‘click-outs’. Online shoppers who used these features (i.e., tags and ratings) were more likely to make a purchase. In contrast, shoppers’ use of product recommendation lists and style boards (i.e., user-generated collages of product pictures) had a negative effect on click-outs. Although the use of such features increased the time shoppers spent browsing, it also diminished shoppers’ propensity to make a purchase, and thus to create transactional value in the short run. For these reasons, we expect the impact of consumer-initiated SCN exploitation on transactional business value to be indeterminate, and we forecast these outcomes to depend on the search features (direct or indirect) most adopted by consumers.

P6: Consumer-initiated SCN exploitation can negatively (P6a) or positively (P6b) influence transactional business value based on the search features consumers use for SCN exploitation

4.2.3 The Value Created by Business Entities Developing SCNs (P7, P8, P9, P10)

Business-initiated SCN development has the potential generate relational business value by encouraging the effective development and nurturing of relationships with stakeholders. Two practices associated with SCN development drive this influence: branding (i.e., developing, nurturing, and protecting a firm’s identity) and service and support (e.g., attending to customers who need assistance) (Culnan et al. 2010).

Branding is the counterpart of self-presentation in a business context. Business entities wish to ‘give off’ a good impression of themselves, albeit for a different ultimate reason compared to consumer self-presentation. Businesses want to appear competent and trustworthy in order to get consumers to purchase their products or services (Sung and Kim 2010). Business entities can shape their identity by developing and nurturing their presence and relationships with their audience, which can be achieved for example by sharing information about new products and events. Social commerce platforms can offer mechanisms that make SCN development more effective. For example, although a platform could be designed such that the audience would need to reach out and ‘pull’ information from a business entity’s page, it could decide to integrate supplementary features to enhance

information *diffusion*. This could be achieved by highlighting visibility. Examples of it are newsfeeds (e.g., on Facebook), which display what others in one's network have shared, and tags, which generate notifications (Oeldorf-Hirsch and Sundar 2015). This could also be achieved by augmenting dissemination. For example, Twitter's 'retweet' function can be used to spread a message further in the network (Boyd et al. 2010). Such features can have an additional beneficial effect on relational value when business entities redistribute the positive messages that others (e.g., consumers) have created about them, thus reinforcing a positive image and reputation.

Customers increasingly use online media to voice their criticisms, frustrations, and dissatisfaction (Ward and Ostrom 2006). Instead of considering these events as threats, businesses could view them as opportunities to show their responsiveness and dedication to customers (Barlow 1996). In fact, research shows that effective service recovery mechanisms can alleviate the negative consequences of service failures, and even help capture the positives of service recovery (e.g., showing professionalism and care) while avoiding the negatives (e.g., conveying a bad image) (Tan et al. 2011). Applying these ideas to the SCN context, we anticipate that business entities will benefit from being able to choose a private or a public visibility for their *responses* to the input of other network actors. In certain circumstances, it may be useful to address complains via messages that others could observe such as when the issue can be resolved quickly and the communication clearly denotes a commitment to excellent service recovery (Grégoire et al. 2015). In other cases, criticisms or disagreements may be better resolved via private follow-ups, such as when there are risks that back and forth messages event primes negative reactions from other network actors and harms reputation (Laufer and Coombs 2006). The recovery method used to address a customer's issue (e.g., offering a rebate on future purchases) might also induce opportunism such as undue complains from other customers (Chu et al. 1998). In sum, SCN platforms that provide both means to respond to unhappy customers are likely to be more effective.

Business entities' responses can be supplemented by functionalities that enable them to be *notified* when they receive messages or when other actors refer them during their interactions with other actors in the network. Being alert to these communications can facilitate effective relationship management as it can help monitor and prioritize inbound messages, thereby enhancing responsiveness to important events, including claims from consumers, while

reducing the likelihood of omitting solicitations (Gensler et al. 2013). Two examples of such notification features are the alerts received when someone posts a comment to a business entity's profile page and the warnings received when someone mentions a business entity such as via the @ functionality on Twitter or Facebook (e.g., a consumer mentioning "we did not enjoy visiting @NYCAquarium today"). Thus, in addition to the benefits gained from being visible and responsive to consumer inputs, being notified of important events in the network appears to be another facilitator of relationship management, thus of relational value.

P7: Business-initiated SCN development contributes positively to relational business value especially when the underlying digital platform enables businesses entities to (i) increase the *diffusion* of their presence and activities in the network (P7a), (ii) offer the choice to *reply* to customer complaints via private or public means (P7b), and (iii) provide *notifications* of consumers' communication requests (P7c).

Next, we posit that the SCN development activities conducted by business entities will facilitate SCN exploitation. Similar to the case of consumer-initiated SCN development (see P2), this proposition is based on the belief that it can pay off later in time to be well-connected. In the case of a business entity, this means that building and engaging with an audience has important prospective value, an idea that has been echoed strongly in the literature on customer relationship management (Gummesson 2004; Weber 2009). A business entity (e.g., a brand) that has created a solid set of connections with potential or loyal customers is likely to benefit from a more receptive audience and customer base. It is particularly well-equipped to target and reach a relevant set of consumers when specific marketing solicitations are prepared such as for the release of new products or the advertising of special products discounts. Thus, we propose P8.

P8: Business-initiated SCN development enables business-initiated SCN exploitation.

We now turn to the cross-side effects of business-initiated SCN development on consumers. For the first cross-side effect (P9), we suggest that the active engagement of business entities with other similar actors (e.g., the relations with other brands sharing similar values, or with other stores that are located in a same district) can help consumers' SCN exploitation. Indeed, business entities that are highly-connected and active network actors create hubs, which are effective means to access relevant information in a network (Barabási 2002; Goldenberg et al. 2009). Therefore, business-initiated SCN development can support

consumers' network search and exploration by contributing to create the channels (i.e., network structures) via which consumers can navigate and reach relevant information. For the second cross-side effect (P10), we anticipate that business-initiated SCN development, especially the development of relationships with consumers, will influence consumer value. There are relatively few examples of these types of B2C connections in practice as most social commerce platforms tend to be designed in such a way where relations and interactions are initiated by consumers not by business entities. One notable exception is Pinterest, a platform where brands can follow consumers and react to their activities on the platform just like any traditional online friend does. We expect consumers to respond either negatively or positively to such solicitations from businesses, and we forecast these outcomes to depend on relevance. Consumers are likely to feel esteemed when solicitations come from business entities that are well-regarded, that are closely related to their interest, or that have values aligned with theirs. This links back to consumers' psychological needs associated with self-expression. However, consumers are likely to consider such solicitations to be intrusive and feel upset when they originate from business entities that do not resonate with them or do not feel appropriate or pertinent (Karl and Peluchette 2011).

We expect a similar relevance-based mechanism for the third cross-side effect resulting from business-initiated SCN development (P11), which posits an indeterminate impact on instrumental consumer value. The effect is likely to be positive when the solicitations provide consumers with product-related information that is particularly unique or diagnostic but it is likely to be negative when it is less personally relevant and creates information clutter (Campbell and Wright 2008; Hammer et al. 2009). P9, P10, and P11 summarize the cross-side effects generated by business-initiated SCN development.

P9: Business-initiated SCN development enables consumer-initiated SCN exploitation.

P10: Business-initiated SCN development can positively (P10a) or negatively (P10b) influence expressive consumer value based on the relevance of business solicitations to consumers.

P11: Business-initiated SCN exploitation can positively (P11a) or negatively (P11b) influence instrumental consumer value based on the relevance of business solicitations to consumers.

4.2.4 The Value Created by Business Entities Exploiting SCNs (P12)

Business entities also engage in social commerce to generate leads and/or sales (i.e., to gain transactional value), and we expect this value creation to be driven by business entities exploiting SCNs. A transaction involves a commitment from a consumer, for example, a purchase, a registration, or a participation to a contest. Advertising messages (i.e., calls-to-action) aim to trigger such a commitment (Culnan et al. 2010), and their effectiveness relies on several factors, including the relevance of the audience to whom they are disseminated and the salience of the informational signals they convey (Goldfarb and Tucker 2011; Robinson et al. 2007). We explain next why business-initiated SCN exploitation should be conducive to transactional value, especially when the underlying platform (i) enables the informed selection (i.e., *targeting*) of consumers exposed to the calls-to-action, (ii) emphasizes the relevance of the message conveyed in the calls-to-action via social *endorsement*, and (iii) offers *analytical* capabilities to help better understand consumers and monitor the effectiveness of call-to-actions.

First, digital networks, including SCNs, are effective channels to disseminate promotional messages because the supporting platforms can collect (and thus provide to advertisers) a large amount of information about their users, including information on demographics, location, education, or product interests (Lampe et al. 2007). Furthermore, businesses that engage in these networks often build highly receptive audiences because consumers who connect to them have agreed to follow or receive their communications (Godin 1999). Audiences can be very large (e.g., in the thousands of people), and in such cases, they are likely to be composed of consumers with various needs and motivations. Thus *targeting* functionalities are likely to be particularly useful to communicate the right messages to the right customers (Lambrecht and Tucker 2013; Sunikka and Bragge 2009). In sum, social commerce platforms can help businesses boost the effectiveness of their calls-to-action by helping them cater to consumers who are most inclined to be receptive to their offers, such as consumers who have an interest in their product, who have already interacted with and showed curiosity in related products, or who are friends with existing clients.

Second, calls-to-action that are endorsed by relevant others (e.g., by friends) can be highly effective. Individuals tend to be influenced by those around them (Burnkrant and Cousineau 1975), a social force that has been observed in various contexts such as word-of-mouth in e-

commerce (Amblee and Bui 2011; Chen et al. 2011) and ad endorsement in online social networks (Chang et al. 2012). Social endorsement can be realized via platform features that enable businesses to incorporate signals of approval from other consumers into calls-to-actions (e.g., like, purchase, visit). In sum, social commerce platforms that incorporate endorsement features should help businesses obtain more transactional value from their SCN exploitation activities by incorporating consumers' social relations into call-to-actions.

Finally, the monitoring of customers and of other market stakeholders has become a core affordance of social media (Divol et al. 2012; Gallagher and Ransbotham 2010). For that matter, companies can use an array of software to screen what is being done and what is being said online (Laine and Frühwirth 2010). To target the right consumers at the right moment and with the right message, and to assess the quality of their relationships with customers, business entities need to collect and process information about what actors of interest in the network have said, thought, done, or felt (Culnan et al. 2010). As a result, transactional business value should benefit from business entities' SCN development initiatives that build on network *analytics*. In doing so, business entities are likely to gain a better understanding of consumers and to be able to build on these insights to design more effective calls-to-action. They are also likely to be better equipped to detect the emergence of trends (e.g., what are the hottest brands, the most visited stores) and moods (e.g., what and how are customers feeling), and thus to design messages that are effective and sent at appropriate moments. Sentiment analysis, which involves examining text semantics using natural language techniques (Kennedy 2012), could help extract insights from the unstructured flows of communications that SCNs engender, for it can be used to estimate the level of emotional intensity contained in informal communications (Paltoglou and Thelwall 2012). Network analytics could also make business-initiated SCN exploitation more effective in generating transactional value by providing measures of the reach and impact of calls-to-action. With these tools, businesses will be able to adjust the target, content, and timing of their messages. Thus, we propose P12.

<p>P12: Business-initiated SCN exploitation contributes positively to transactional business value especially when the underlying platform enables businesses entities (i) to proceed to a detailed <i>targeting</i> of customers (P12a), (ii) to leverage and emphasize <i>endorsements</i> from relevant others (P12b), and (iii) to leverage network <i>intelligence</i> to learn about consumers and the effectiveness of calls-to-actions (P12c).</p>

5. DISCUSSION

Two objectives motivated this research: (1) to clarify the scope and multifaceted nature of social commerce, and (2) to better understand its value potential. To reach these goals, we have proposed the concept of social commerce networks, defined as the digital network ties created and leveraged by consumers and business entities as they connect and interact among and between each other. In this section, we first summarize the key assumptions upon which we drew to define the SCN concept, to develop a typology of SCN structures, and to specify the research framework's key constructs. Then, we discuss the implications of the study together with its limitations and the opportunities it creates for future research.

5.1 Summary of Foundational Assumptions

A critical gap in social commerce research is that there has been limited effort to rigorously examine and articulate the distinctive characteristics of the phenomenon. To fill this gap, we have followed a deductive reasoning approach relying on a set of foundational premises, which are summarized in Table 4. The first three premises were derived from the literature in marketing (premise #1), in social commerce (premise #2), and in information systems (premise #3). Altogether, they lead us to propose SCNs as a new conceptual anchor for the study of social commerce. The fourth premise was informed by the social network literature. It was used to develop a typology of SCN structures, and thus to delineate boundaries for the social commerce phenomenon. We categorized these structures in eight possible types based on the content of the social ties between consumers and business entities (a relation versus an interaction) and their direction (i.e., whether the tie is initiated by a consumer or a business entity). Finally, the literature on the value of information systems and on social media networks informed premises #5 and #6, which lead us to specify four types of IT-mediated actions through which customers and business entities create and exploit SCN structures (i.e., business-initiated SCN development, SCN-initiated SCN exploitation, consumer-initiated SCN development, and consumer-initiated SCN exploitation). These key premises and inferences provided the foundation for the research framework, which incorporated four additional constructs to capture the value that businesses and consumers can obtain from social commerce (relational business value, transactional business value, instrumental consumer value, expressive consumer value). Finally, the propositions were developed based

by drawing on extant knowledge geared to the domains associated with the outcome variables (i.e., identify management and self-expression for expressive consumer value, consumer support life cycle support for instrumental consumer value, branding and service management for relational business value, and marketing communication effectiveness for transactional business value).

Table 4. Key Premises Underlying this Research

Premise #1	Consumers and business entities are key social commerce actors
Premise #2	Networks are a distinctive feature of social commerce.
Premise #3	Social commerce networks (SCNs) are digital representations of ties between actors. They are composed of nodes and ties dictated by the context, e.g., the supporting platform.
→ (inference #1) Conceptualization of SCNs : SCNs are a kind of social media network composed of the representations of business and consumer actors and links between them.	
Premise #4	Network ties can represent more or less transient links between network actors (relations tend to be stable while interactions are more event-like)
→ (inference #2) Typology of SCNs : Eight SCN structures can be distinguished based on link type (relation/interaction), link initiator (consumer/business) and link target (consumer/business).	
Premise #5	SCNs are co-created ; such that consumers and business entities not only exploit but also contribute to their development.
Premise #6	The use of a digital platform is the key proximal factor explaining the benefits that it can provide to their users.
→ (inference #3) Theorization of SCNs : SCN exploitation and SCN development are two core value-creating activities in social commerce. Given the consideration of both consumers and business entities, we derived four constructs to capture the main drivers of social commerce value : consumer-initiated SCN development, consumer-initiated SCN exploitation, business-initiated SCN development, and business-initiated SCN exploitation.	

5.2 Theoretical Contributions

To summarize how this study contributes to theory, we rely on MacInnis' (2011) typology of conceptual contributions, which includes four broad types: envisioning new ideas, relating ideas, explicating ideas, and debating ideas. In MacInnis' terms, our study's first objective, which was to clarify the nature and scope of social commerce, is associated with a conceptual contribution potential of the 'relating' type. Contributing by relating ideas involves two specific aspects, (1) differentiating (i.e., "*see types of things and how they are different; to discriminate, parse, or see pieces or dimensions that comprise a whole*", p. 138), and (2) integrating (i.e., "*see previously distinct pieces as similar, often in terms of a unified whole*").

whose meaning is different from its constituent parts; to synthesize, amalgamate, or harmonize”, p. 138). In concrete terms, the proposed network-based conceptualization of social commerce helps to differentiate social commerce from related phenomena with which it tends to be confounded (i.e., e-commerce, online communities, social networks, social network sites). Moreover, by integrating knowledge from the information systems, the social network, and the marketing literatures, it combines lenses that are complementary, which affords a more inclusive and accurate view of the phenomenon than if only one or two lenses had been adopted (Okhuysen and Bonardi 2011).

Our second research objective, which was to explain how and why consumers and business entities can obtain value from social commerce, is associated with a conceptual contribution potential of the ‘explicating’ type (MacInnis 2011). Explicating ideas is achieved when a study can “*detail, chart, describe, or depict an entity and its relationship to other entities*”, p.138). The proposed theoretical framework specifies new constructs and a propositional inventory concerning the relationships between them. Constructs are knowledge representations that are essential to the scientific inquiry, for they provide lenses through which to view the world and to filter observations. By proposing four new constructs associated with the types of actions that consumers and business entities conduct in the context of social commerce (i.e., developing and exploiting SCNs), and by illustrating how they may manifest in practice in Vignettes 1 to 4, we contribute by defining new units of analysis and measurement that are grounded in clearly identified premises about the unique nature of the focal phenomenon. As for the research propositions, they specify the relationships that we anticipate between the constructs. While the propositions will need empirical investigations, they already suggest new insights. First, they show that what could be thought of unrelated is, in fact, related. For example, we revealed that given their interdependency, consumers and business entities are likely to experience consequences from their counterpart’s actions in addition to their own actions (see propositions P3, P4, P6, P9, P10, and P11). This happens, for example, when a business entity gains brand awareness when customers share good words about its products. Second, they suggest that what could be deemed simple is, in fact, quite complex. As the framework shows, there are different types of actors who can be connected in different ways and who can conduct different actions to create and exploit SCN structures. In other words, there seems to be multiple, complex pathways to

value. In fact, the four propositions that describe how consumers and business entities get impacted by their own SCN development and exploitation activities touch upon the facilitating role of technological capabilities of social commerce platforms and highlight the contingencies that could affect the value obtained by SCN actors (see P1, P5, P7, and P12).

5.3 Practical Contributions

This research can assist firms in crafting a social commerce strategy. For that matter, we suggest a two-stage approach, comprised of a consumer-focused and a business-focused analyses. In a first step, firms could take an ‘external’ stance by examining which type(s) of consumer value to create and how to deliver this value. In doing so, a starting point would be to map out key consumer segments. For example, a university may identify current students, prospective students, alumni, and business partners as such. Alternatively, a coffee roaster may specify coffee geeks and cafes as their own relevant targets. A subsequent activity would consist in defining the types of value outcomes relevant for each consumer segment. Following the framework developed in the present study, this analysis could involve organizing value outcomes according to whether they satisfy expressive or instrumental consumer needs. Two following steps would involve setting priorities with respect to the identified value outcomes and using the research propositions to lay down a set of tactics to reach the prioritized outcomes. For example, propositions P1 and P10 would be useful to think of the tactics that could be implemented to encourage consumer expressive value. In a second step, firms could take an ‘internal’ stance by focusing on the types of value they would like to foster for themselves (i.e., relational and transactional business value). In doing so, they would need to specify the key desired value outcomes, to set different levels of priorities for these outcomes, and similar to the first stage, to leverage the propositions associated with the targeted outcomes to determine the relevant SCN development and exploitation tactics.

This research also advises firms engaging in social commerce to keep in mind three important matters. First, they need to monitor and influence cross-side effects, for the development and exploitation of social commerce networks by consumers might impact them (see P3, P4, and P6). Thus, the propositions can guide firms in crafting tactics that could help them cope with the risks of being impacted negatively (P3a, P6a) and tactics that could encourage positive outcomes (P3b, P6b, P4). Second, some of their own SCN development and exploitation activities may yield direct value for themselves (see P7 and P12), as well as

for consumers (see P10a and P11a). However, they might hinder consumer value both immediately, such as when a consumer may not like to feel observed, and in the longer run, such as when promotions appear pushy and less relevant (see P10b and P11b). Finally, platform design can contribute to the value-potential of social commerce, and thus it would be desired for firms to conduct thorough assessments of potential SCN platform(s) so that they can choose the best fitting one(s). Tables 5 and 6 summarize the design recommendations associated with the propositions on consumer value (P1, P5) and business values (P7, P12). We encourage firms to collect data about their consumers' preference with respect to the functional affordances specified in these tables so that they can give priority to the most important one(s). In parallel, these guidelines can be used by consumers to select their own best-fitting social commerce platforms, and by social commerce platforms to benchmark against competitors.

Table 5. Platform Design-related Recommendations Targeted at Consumer Value

Platform design can foster social commerce value by empowering consumers to...	Related Value	Related Proposition
...express themselves via meaningful (textual or symbolic) <i>semantic</i> representations	Expressive consumer value	P1a
...have <i>authority</i> over who is part of their audience		P1b
...get <i>feedback</i> from their audience on their contributions		P1c
...notice <i>signals</i> referring to products recommended by relevant peers	Instrumental consumer value	P5a
...request <i>aid</i> from relevant peers to help assess and choose products		P5b
...provide effective means to <i>reach out</i> to other consumers or business entities that can help improve the post-purchase experience		P5c

Table 6. Platform Design-related Recommendations Targeted at Business Value

Platform design can foster social commerce value by empowering business entities to...	Related Value	Related Proposition
...increase the <i>diffusion</i> of their presence and activities in the network	Relational business value	P7a
...choose to <i>reply</i> to customer complaints via private or public means		P7b
...obtain <i>notifications</i> of consumers' communication requests		P7c
...proceed to a detailed <i>targeting</i> of customers	Transactional business value	P12a
...leverage and emphasize <i>endorsements</i> from relevant others		P12b
...leverage network <i>intelligence</i> to learn about consumers and the effectiveness of calls-to-actions		P12c

5.3 Limitations and Future Research

Our conceptualization of online social commerce is bounded by the set of premises upon which it relies. For example, as a starting point, we chose to focus on two key market actors (consumers and business entities) and two types of social ties (relations and interactions). In future research, social ties could be differentiated further (e.g., some interactions facilitate the exchange of several types of goods such as emotional support, information, or money) and business actors could be classified with a finer level of details (as Table 2 suggests). Researchers could also choose to adopt another theoretical lens and a totally different set of assumptions to conceive social commerce and its value potential. Moreover, an inductive stance could also be taken instead of the deductive approach followed in this research. The field and practice of social commerce would benefit from diversity in theoretical perspectives.

The proposed framework has the advantage of being inclusive (e.g., considering both consumer and business value) but the associated disadvantage is that it will be difficult to test the framework in a single study. Instead, researchers could build on it to develop more in-depth and contextualized theories about the relationships that appear most interesting to them (e.g., focusing on expressive consumer value or on transactional business value). In addition, four research avenues appear to be particularly interesting. First, the propositions that posit indeterminate influences (P3, P6, P10, and P11) deserve more detailed inquiry. Researchers could work on specifying and testing the key contingent factors influencing the manifestation of positive or negative consequences. Second, future research could investigate the SCN development thresholds that are meaningful in activating and facilitating SCN exploitation (P2, P8, and P9). A third avenue is to explain how the business and customer-related value aspects relate to each other. For example, it would be worthwhile to better understand the link and potential virtuous circle between customers' self-presentation activities and firms' relational value. Finally, researchers could investigate cases where the boundaries between the proposed constructs are challenged, for example, when a business actor holds multiple virtual identities in a social commerce network, or when an actor holds both a consumer and a business entity role simultaneously. In defining and investigating the subsets of the social commerce domain that interest them most, researchers should choose the methodological approaches that are best geared to their objective. For example, qualitative methods are likely to be particularly useful for conducting in-depth inquiries into the dimensionality of the

framework's constructs or the specification of contingency factors while quantitative methods should be most useful for formally testing measures and hypotheses (MacKenzie et al. 2011).

6. CONCLUSION

Starting from the observation that the practice of online social commerce remains ad-hoc and its scientific inquiry rendered difficult due to inconsistent conceptualizations, we set out to develop conceptual foundations for its study and the understanding of its value potential. We made the case for the utility of an approach that is based on the basic premise that a unique aspect of social commerce is its reliance on digital networks for mediating commerce, and that draws on marketing, social networks, and information systems research. Overall, the analysis conducted in this paper delivered two key outputs: a typology of the relevant network structures that manifest in social commerce and a framework explaining the value opportunities that forming or acting on these structures may afford to consumers and businesses. We hope that these can provide a useful platform for future research on social commerce.

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