



Social commerce research: An integrated view

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ABSTRACT

Social commerce has quickly emerged as a new area of inquiry for both practitioners and researchers, suggesting the potential impacts of social media and social networking technologies and services in shaping commercial channels on and off the Internet. This essay starts by providing a brief overview of social commerce research and practice in light of the wide attention it has drawn in the industry. Then, we propose a research framework with an integrated view of social commerce that consists of four key components: business, technology, people, and information. The framework helps us understand the development of social commerce research and practice to date. Subsequently, we report some preliminary findings from a bibliometric study of academic and industry publications in social commerce to reveal recent trends and research topics, as well as some verification of the research framework. Finally, we discuss five articles in this special issue and categorize them in terms of the proposed social commerce research framework.

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1. Introduction

Social commerce is a form of commerce mediated by social media involving convergence between the online and offline environments (Wang and Zhang 2012). In a broad sense, social commerce involves the use of Internet-based media that allow people to participate in the marketing, selling, comparing, curating, buying, and sharing of products and services in both online and offline marketplaces, and in communities. Social commerce has received a lot of attention for shaping emerging commercial channels on the Internet. Many e-retailers are taking advantage of social technologies and services to expand their businesses. Since social media have become readily accessible, more consumers use it as a source of information about companies, brands, products, and services. According to Forrester Research (Anderson et al. 2011), the social commerce market will grow to about US\$30 billion in U.S. by 2015. Thus, consumers, businesses and individual retailers should recognize the implications of such a potential paradigm shift in e-commerce.

The opportunities associated with social commerce have generated significant interest for both researchers and practitioners. Social commerce is an interdisciplinary subject that concerns business models and strategies, consumer and organization behavior, social networking technologies, analytical techniques, system

designs, business practices, research methodologies, and prospective and retrospective assessment of business value. Such assessments can help a business to better understand the potential impact of social media and networks in an ever more competitive online marketplace.

This special issue offers an answer to the calls for research exploration on the many interesting challenges, opportunities and promises of social commerce. It aims to foster research that can provide a better understanding of social commerce-related phenomena and to provide guidance to social commerce practice. In this introduction to the special issue, we first provide an overview of this emerging area. Then we develop a research framework for social commerce by integrating and expanding several frameworks to guide understanding social commerce research. Next, we present some preliminary findings from a bibliometric study of social commerce publications. The findings highlight the emerging nature and excitement of social commerce to date. They also demonstrate the promise of the integrated research framework. Finally, we describe the five articles appearing in this special issue.

2. An overview of social commerce practice and research

Since the term was coined in 2005, social commerce has been largely driven by practice rather than by research (Wang and Zhang 2012). Social commerce enables businesses to reach global consumers with greater efficiency than traditional retail outlets by integrating user-generated content into the storefront. Customers can collaborate online, exchange information about products

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and services, and get advice from trusted individuals (Leitner and Grechenig 2009) so that they will make more informed and accurate purchase decisions. As a result, the use of social technologies enhances and defines the shopping experience by forging relationships and influencing buying behavior. Shoppers do not arrive at a site alone but bring their entire social networks with them (Marsden 2010). When properly marketed, businesses can disseminate information about their products and services, and grow through viral exposure. In addition, according to the co-founders of Groupon, due to its low barriers for entry, social commerce enables new businesses to go online quickly and easily (Crain's Chicago Business 2012). Such low set-up and implementation costs and simple subscription plans are partly enabled by software-as-a-service (SaaS) capabilities. Thus, social commerce has the potential to significantly enhance the competitive advantage of a firm by having a dramatic impact on its operational effectiveness and efficiency, customer relationships, product and service offerings, and revenue growth.

Many e-commerce companies attempting to deploy social commerce are still trying to figure out how to use social media and social networking services effectively in reaching their users in the global market, however (Sun 2011). According to statistics from IBM (2012), out of all online Black Friday sales in 2012, the percentage of social sales from shoppers who were referred from social networks such as Facebook, Twitter, LinkedIn and YouTube only accounted for 0.34%, a drop of more than one-third compared with the prior year. These numbers suggest that the best years of social commerce are probably still yet to come. Easy entry into social commerce may also lead to fierce competition in this emerging platform. The growth of social commerce market is further hampered by a number of transaction-related issues such as the failure of purchased items to be properly delivered and the delivery of wrong items (Kim and Park 2013), and inappropriate recommendations and uninformed reviews (Briggs 2011).

It may take time to reap the benefits of social networks because a consumer who becomes interested in a product online through a referral from his/her social networks may only buy the product in the future or use the recommendation for future reference. Even Groupon, the largest online coupon site that offers discount deals on various products and services in the international market, has seen the market casting doubt on the sustainability of its business model, which has caused its stock price plummet and fluctuate in the last year (Bhattacharjee and Oreskovic 2012). As a result, many businesses are hesitant to transition into social commerce due to concerns over return on investment on marketing and obtaining customers.

Social commerce has gone way beyond an increased presence within social networks (e.g., through collecting fans, likes and followers) (Griffith 2011), and now creates economic value as well (Stephen and Toubia 2010). Others have observed, from a detailed analysis of the evolutionary patterns of social commerce, that the restructuring of e-commerce has been occurring, with an emphasis on the search for new business strategies and models that will be competitive in the digital global economy (Wang and Zhang 2012). These will include business strategies and models that evolve to facilitate the social experiences of consumers, and to create alliances between e-retailers and social networking sites. Some of the things being observed include the convergence of online and offline social networks and retailers, crowdsourcing and social media branding, value co-creation and multi-channel activities, and social businesses. In addition, social commerce has become increasingly technology-enabled (Curty and Zhang 2011), and has evolved from blogs to social networking sites, to mediated sharing sites, to SaaS, and then to localized services (Wang and Zhang 2012). Thus, the survivability of social commerce is increasingly dependent on online social networking, with its innovations in

functionality, its integration with commerce activities, and its mechanisms for promoting social interactions and trust.

In summary, it is crucial to recognize that social commerce is not just a simple fusion between e-commerce and social networking technology, regardless of whether it takes the form of adding a social layer to e-commerce web sites or plugging a retail layer into social media sites. The discussion of opportunities, challenges, and evolving understanding of social commerce lends us to a research framework with an integrated view of social commerce.

3. A research framework with an integrated view of social commerce

There are several frameworks that can be used or expanded to outline and understand social commerce research. For example, Liang and Turban (2011) presented a framework that integrates six key elements. These include research themes, social media, commercial activities, underlying theories, outcomes, and research methods. The framework identifies social media and commercial activities as two fundamental elements of social commerce. For the research themes, they list user behavior, firm performance, network analysis, adoption strategy, business models, enterprise strategies, website design, social processes, and security and privacy policy. These research themes are conducive to understanding the knowledge landscape of social commerce. On the other hand, some of these research themes are noticeably more related to one another than others. Providing a higher-level model of research topics would be helpful to not only understanding these research themes but also allowing researchers to identify new themes and research directions.

Another possible framework is the *strategic alignment model* (SAM) by Henderson and Venkatraman (1993), which is prior to the social commerce phenomenon but may be expanded to depict the potential research issues from an organization's perspective. SAM attributes difficulties with realizing value from information technology (IT) investments to the lack of alignment between the business and IT strategies of organizations. One of the fundamental assumptions of strategic alignment is that economic performance is directly related to the ability of management to create a strategic fit between the position of an organization in the competitive business environment and IT marketplace, and the design of an appropriate administrative infrastructure. SAM suggests the role of people in strategic alignment as being among the secondary dimensions used to describe the framework, such as IT skills. This is understandable since the historical view is that human capital strategies are driven by business and IT strategies, and not the other way around. User participation and contribution are essential to the success of social networking technologies, and this allows businesses and organizations to harness the collective intelligence of people in the form of the *wisdom of crowds* (O'Reilly 2005). The emergence of social media has enhanced the influence of traditional social networks. Electronic word-of-mouth has become so powerful, that its scope of influence is not limited to other consumers, but includes organizations and IT strategies as well. For instance, consumer word-of-mouth has become a significant driver for demand, marketing, product design, consumer relationship management, and business alliances (Amblee and Bui 2011). It is important to explicitly highlight the role of different types of people related to the success of social commerce.

Wang and Zhang (2012) use a four-component model to analyze the various facets of social commerce movement since 2005. In view of the multi-disciplinary nature of social commerce, the model emphasizes people and information, in addition to technology and business. People are viewed as the driving force for socialization, commerce, technological advancement, and information creation and use. In social commerce, people may be individual

consumers and sellers, be in small or large groups, or be in identifiable user communities that benefit from the technologies. Social commerce started with the notion of user-generated content, a type of information, enabled by Web 2.0 technologies (Wang and Zhang 2012). Information can take a variety of forms and it progresses through different stages in its lifecycle: creation, capture, storage and organization, transformation, sharing and dissemination, and use, evaluation and refinement (Lee and Choi 2003). Applications of information depend on how interactions occur with the other three components. The four-component model also takes into consideration the interdependencies among its components: each of them will continue to evolve and influence the other three. Nevertheless, the model does not directly address why some social commerce efforts have been successful, while others have failed.

We will use Wang and Zhang's four-component model as the basis for our framework, and extend it to include the dimension of strategic fit. We selected the four-component model because it provides a relatively complete picture of the fundamental elements of social commerce. For example, the framework supports understanding the specific research themes of social commerce identified by Liang and Turban (2011): the people component includes user behavior and adoption strategy; firm performance, business models, and enterprise strategies are covered under the business component; and the technology component covers network analysis and website design. Liang and Turban's research themes do not emphasize information-related issues very much. Such issues relate to user-generated content, product reviews and recommendations, word-of-mouth, and so on. All are in the core of social commerce. Such information has become a collective signal of the reputations of e-retailers in social commerce (Amblee and Bui 2011), and has created a rich resource for gaining business insights. Information quality, communication, and word-of-mouth referrals have been found to positively influence trust, which in turn influence purchase and word-of-mouth intentions in social commerce (Kim and Park 2013).

The four-component model is also helpful for understanding research that focuses on multiple components. For example, Huang and Benyoucef (2013) propose a model and a set of principles for guiding social commerce design. The model may seem complex and overwhelming, but applying the four-component model shows that Huang and Benyoucef's model emphasizes the integration and interdependencies of the people, information and business components.

Extending the framework to incorporate strategic fit may allow us to explain why some social commerce practices are successful while some others are less so. Following the conceptualization of strategic fit (Henderson and Venkatraman 1993), we posit that there is a need for fit between external positioning and internal arrangements in all four building blocks of social commerce. SAM has explicitly addressed the role of strategic fit for the areas of business and technology, so our discussion focuses on people and information. In a similar vein, both people and information can be viewed in terms of the related external and internal domains. The external positioning of social commerce in the information and people marketplace involves three sets of choices: information and people scope, distinctive competencies, and governance. The internal information domain must address at least three components: architecture, processes, and access. There has been an extensive discussion of information strategy and policy (intellectual property, security, privacy, and censorship) and global information infrastructure in the cyberspace (Kahin and Nesson 1997). As information moves through its lifecycle of creation, capture, storage and organization, transformation, sharing and dissemination, and use, evaluation and refinement, it becomes accessible to more and more people. Information in social commerce shares all these common characteristics. In essence, social

commerce unleashes the power of electronic word-of-mouth for consumer-to-consumer interactions in e-commerce (IBM 2009). To actually realize and grow the infrastructure for such communication, a social commerce firm should design both information and people strategies that fit the infrastructure.

The internal people domain needs to address at least three constituent components: human resource, processes and skills (Boxall and Purcell 2007). The internal domain is consistent with the traditionally internal orientation of managers, where there is a clear demarcation between internal personnel and external people. As a result, the external domain of people strategy is traditionally ignored by managers. Wang and Zhang (2012) have called for attention to the diversity of people in social commerce. There has been a trend for users and marketers to co-create content and another trend toward global crowdsourcing in social commerce. Businesses have utilized social media to interact with customers, trading partners, employees and other important stakeholders (Saundage and Lee 2011).

People also are central to a new dimension that has been social commerce unleashes the power introduced in various refinements and additions to the original "4P" marketing mix framework of product, price, place, and promotion in the marketing literature (McCarthy 1964). There has been a paradigm shift in marketing toward relationship marketing (Grönroos 1994), and more recently, toward social marketing that promotes voluntary behavior change (Kotler et al. 2002). Thus, as social networks of people emerge as a critical enabler of business transformation with capabilities to deliver firm-level advantages, there is a need for managers of e-commerce firms to strategically position themselves in the people marketplace, where they obtain critical people assets to support and shape their business and technology strategies. In essence, social commerce unleashes the power of electronic word-of-mouth for consumer-to-consumer interactions in e-commerce (IBM 2009).

Fig. 1 illustrates four essential elements of social commerce, their alignment and integration relationships, and strategic fit between strategy and infrastructure levels in each element.

Strategic fit is inherently dynamic. This is because the choices made by one business enterprise or firm will evoke imitative actions over time, and this will necessitate responses from other competitors (Henderson and Venkatraman 1993). The continuous adaptation and change also arise due to fast-evolving IT, people interaction, and social media content that allow organizations to create new processes and structures that fundamentally change the ways they do business. For instance, retailers appear to be

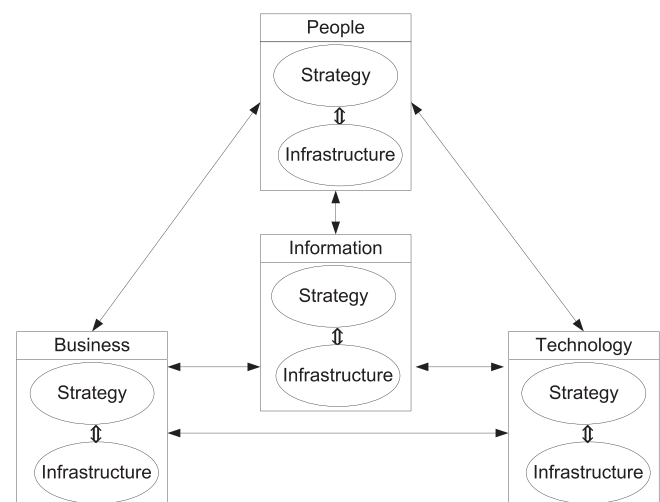


Fig. 1. An integrated view of social commerce research.

changing their tactics with social media by using them more as means of driving customers into stores than as a direct sales tool for shoppers to make instant purchases with deep discounts (Schectman 2012). In addition, retailers may be becoming more sophisticated in their use of social networks by making them a part of a more integrated marketing strategy. They are doing it as a way of getting people into stores and onto e-commerce sites, in which consumers may make multiple purchases, rather than by driving single sales of discounted items (Schectman 2012).

4. Preliminary findings from a bibliometric study

In an effort to better understand the current state of social commerce research trends and identify sources of knowledge, we conducted a bibliometric study to analyze the literature, publications, and key research topics related to social commerce. Following the data collection and analysis methods of Chen et al. (2012), we searched for and collected literature from the past decade between 2003 and 2012. The following digital libraries were used to identify the potential publications: Web of Science, Business Source Premier, IEEE Explore, ScienceDirect, and Engineering Village. These sources contain high-quality bibliometric metadata, including journal names and dates, author names and institutions, and article titles, abstracts, and keywords. A full report on this study is beyond the scope of this essay. Here we present some preliminary findings that are relevant and may shed some light on social commerce research.

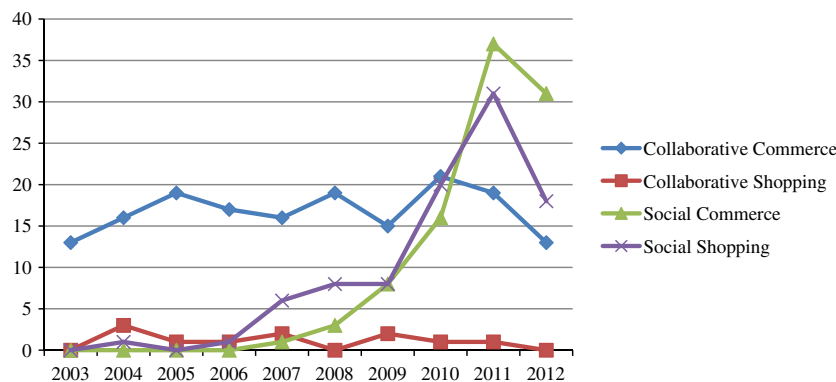
To ensure consistency and relevance across our data collection, we retrieved only those publications that contained the phrases “social commerce,” “social shopping,” “collaborative commerce,” and “collaborative shopping,” within their titles, abstracts, or subject terms where applicable. The choice of these four phrases was to highlight publications of direct relevance to social commerce. However, this search procedure may also have omitted articles that used other social commerce-related terms (e.g., social media promotions, group buying, f-commerce), but not the four specific phrases. In addition, we only considered those publication outlets that have the full body of their text in English. The collected data were exported and parsed into a relational database for analysis. After removing duplicates, we obtained 317 unique records in total. Fig. 2 depicts the frequencies and trends of publications relating to the four search phrases.

The overall publication trend for the phrase “social commerce” has shown an increasing growth trend starting around 2005 and 2006. The dip in growth in 2012 may be due to incomplete data for that year. A similar pattern was observed for “social shopping,” which started to appear slightly earlier than “social commerce” but nevertheless shares the same upward trend. The trend related to “collaborative commerce” remained relatively stable over the entire period. “Collaborative shopping” is the least frequently-used phrase compared to the other three. Overall, the total numbers of publications with “social commerce” and “social shopping” were about equal – 83 versus 78. The total number of publications with “collaborative commerce” was the highest at 145, the lowest was “collaborative shopping” at 11. Table 1 lists the outlets that have published three or more of the above publications.

Overall, the majority of publications appeared in industry magazines rather than the standard academic outlets of journals and conferences. This pattern was confirmed by Wang and Zhang (2012). Among the journal publications, all of the articles in the *International Journal of Electronic Commerce*, and two articles in *Electronic Commerce Research and Applications* and *Decision Support Systems* had the phrase “social commerce.” The rest of the journal articles have the phrase “collaborative commerce” instead.

To gain more insight into the substance of social commerce research from our research framework’s perspective, we extracted and analyzed author keywords from a subset of the published work that we identified: those articles that contained the phrases “social commerce” or “social shopping.” We preprocessed the raw keywords by consolidating various forms of the same keywords, including acronyms (e.g., eWOM) and inflections (e.g., social networks). Then, we removed some general terms such as “e-commerce,” “business,” “social commerce,” “shopping,” “consumer,” and some others. We also removed keywords representing real-world entities that were too general, such as “company,” “country,” and “industry,” and keywords with a frequency less than two. Further, given our focus on research themes, we removed keywords that reflect research methods, theories, and disciplines. Table 2 shows the results of the keywords classified using the four components. Although some keywords can be context-dependent, the intention here is mainly to provide an illustration rather an accurate or comprehensive listing.

The four-component model works well in illustrating the current interests and efforts in social commerce research. Specifically,



Keyword	Total	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Collaborative Commerce	145	12	13	15	14	11	19	14	18	15	13
Collaborative Shopping	11	0	3	1	1	2	0	2	1	1	0
Social Commerce	83	0	0	0	0	1	2	7	15	30	27
Social Shopping	78	0	1	0	1	6	8	6	17	23	15
Total	317	13	18	18	18	21	29	29	52	69	55

Fig. 2. Social commerce-related publication trend from 2003 to 2012.

Table 1

Top journals, conferences and industry magazines with social commerce publications.

Type (#)	Outlet	# of Publications
Journals (21)	<i>Decision Support Systems</i>	8
	<i>International Journal of Electronic Commerce</i>	6
	<i>International Journal of Information Management</i>	4
	<i>Electronic Commerce Research and Applications</i>	3
Conferences (14)	<i>ACM International Conference Proceeding Series</i>	7
	<i>Lecture Notes in Computer Science</i> , including the subseries <i>Lecture Notes in Artificial Intelligence</i> and <i>Lecture Notes In Bioinformatics</i>	4
	<i>Applied Mechanics and Materials</i>	3
Magazines (43)	<i>New Media Age</i>	11
	<i>Entrepreneur</i>	7
	<i>Wall Street Journal – Eastern Edition</i>	6
	<i>CIO</i>	4
	<i>Forbes.com</i>	4
	<i>Marketing Week</i>	4
	<i>Stores Magazine</i>	4
	<i>Billboard</i>	3

Table 2

Most Frequent Author Keywords in the Social Commerce Literature.

Fit	Business	Technology	Information	People
Strategy	Branding (marketing)			Attitudes
	Cash back			Behavioral intention
	Competitive advantage			Consumer behavior
	Consolidation, corporate mergers			Consumers' preferences
	Deals	Affordances		Customer satisfaction
	Discount	Internet strategy		Enjoyment
	Entrepreneurship	Product recommendation	Information privacy	Hedonism
	Internet advertising	Relationship quality	Product recommendation	Hedonistic consumption
	Internet marketing	Social network services	Product reviews	Impulse buying
	Internet sales	User interfaces	User-generated content	Internet shopping
	Marketing strategy			Internet users
	New business enterprises			Online shoppers
	One-stop shopping			Online shopping
	Sales management			Relationship quality
	Sales promotion			Social comparison
Venture capital			Social presence	
			Social shopping	
			Teleshopping	
Infrastructure	Advertising	Computer network resources		Online social networks
	Business forecasting	Facebook	Data mining	Social interaction
	Credit cards	Interaction design	Government data	Social networking
	Econometrics	Mobile devices	Information retrieval	Social networks
	M-commerce	Online social networks	Processing	Social support
	Marketing	Shopping sites		Trust
	Retail stores	Social media		
	Sales	Web 2.0		
	Selling	Web services		
	Supply chains			

a good number of research themes fall into the people and information realms, providing strong evidence for incorporating people and information into the research framework. In each of the four components, the keywords can be further grouped into strategic and infrastructure factors, demonstrating the notion of strategic fit. It should be noted that all the terms grouped into the infrastructure (internal domain) of people can be cross-listed with its strategy constituent. This suggests that the line between the internal and external domains of people blurs in social commerce, further highlighting the need for strategic fit with people. In addition, some terms were assigned to more than one class. For instance, “relationship quality” was assessed with respect to the user and social networking sites, and thus grouped into both people and technology.

We should note that bibliometric studies of this sort have their limitations, just like other research approaches do in other studies. Nevertheless, the analysis results for author keywords provide

some evidence that the research framework we presented in this essay is useful for social commerce research.

5. New research in social commerce

The five articles in this special issue cover a diverse set of research issues in social commerce. Their contents can be understood through the lens of our research framework. Table 3 lists some characteristics of these new research contributions to the social commerce literature.

The first article asks the following question: “Under What Conditions Will Social Commerce Business Models Survive?” The author, Dohoon Kim, analyzes the conditions under which the social commerce industry will survive by assessing group-buying business models using economic analysis. This article models the relationship between key decision issues, such as marketing expenditures and the resulting revenue streams, and captures

Table 3
Summary of the five papers.

Author	Research topic emphasis	Social commerce emphasis	Research data source	Research method
Kim Zhou et al.	Business Information and technology	Group-buying Fixed-price group-buying	– ju.taobao.com tuan.360buy.com (top group-buying websites in China)	Economic modeling Panel data fixed effects estimation
Peddibhotla Ko	People People	Product reviews Journal-style blogs	Amazon.com social networks; survey of contributors Experienced bloggers from PTT (popular BBS in Taiwan)	Survey; Structural equation modeling Survey methods; partial least squares regression
Gorner et al.	Technology	Seller recommendations	–	Simulation

essential features of the social commerce businesses. The author suggests that the burgeoning social commerce market may be disrupted by the fierce competition that has arisen related to its own rapid growth. Key issues are the low barriers to entry and brand recognition, as well as sharp increases in marketing and advertising expenditures. To avoid the tragedy of the commons and to encourage the industry to develop sustainable business models for the future, social commerce firms need to be aware of these issues and take preventive actions to overcome the shortcomings of the current business models. The author offers recommendations for reducing the marketing costs of social commerce firms in their early stage by establishing business policies (e.g., advertising code compliance and quality assurance), and seeking technological innovations (e.g., location-based, personalized services with mobile support). This study suggests that social commerce firms should emphasize the social aspects of their business models, where the marketing activities focus more on word-of-mouth diffusion through social networks than through aggressive multimedia advertising campaigns.

The second article explores the following question: “Do Starting and Ending Effects in Fixed-Price Group-Buying Differ?” The authors, Geng Zhou, Kaixuan Xu and Stephen Y. Liao, analyze information diffusion in group-buying markets. Diffusing information on the orders that have been placed and participants’ purchasing experience to new customers is key in determining the success of such social commerce activities. Tracking the influence of that activity is essential to closing the loop on how much impact the social aspects of group-buying have on sales. The authors examine the effects of mass media communication (micro blogging, weblogs, and podcasts) and interpersonal communication between participants who are dependent on one another on sales in group-buying. Their empirical results are developed using large-scale data sets from two large group-buying websites in China. They show that the effects on information diffusion on final sales vary between the starting and ending periods of the process. In addition, the current finding about the ending period is in direct contrast with the notion of startup inertia from previous research in group-buying with dynamic pricing. This study also provides explanations for the different rates of growth of group-buying websites in recent years from the information diffusion perspective. The authors further offer managerial recommendations on how to leverage the diffusion of information in social media to achieve success in group-buying.

The third article of the special issue was contributed by Naren Peddibhotla, and is entitled “Why Different Motives Matter in Sustaining Online Contributions.” The author develops a mid-range theory of sustained online contribution behavior at product review sites. The theory he used incorporates the motives for participation associated with the classical volunteer process model, supplemented with the consideration of opportunities for the fulfillment of each motive based on various behaviors that are observed in the context of a product review site. The author’s empirical results

provide support for the positive influence of individual motives related to making repeated contributions. One is called the *understanding motive*, which involves gaining an understanding of a domain, and another is the *social-adjustive motive*, which involves trying to be like others whom a person considers to be important. When people have these motives, they appear to sustain two aspects of repeated contribution behavior: contribution frequency and contribution volume. A counterintuitive finding is that the social-adjustive motive toward general others appears to be negatively associated with contribution volume. Volunteer contributions constitute a major portion of the value-added by social commerce to a consumer’s shopping experience. Peddibhotla suggests that the value that is produced will be higher when deliberate design choices are made to create social commerce sites that foster social connections among consumers.

The penultimate contribution to this special issue is “The Determinants of Continuous Use of Social Networking Sites,” by Hsiu-Chia Ko. This article empirically investigates bloggers’ continuous self-disclosure. The author analyzes the direct effects of self-disclosure by bloggers and the positive audience feedback they receive. Additional consideration is given to the indirect effects of self-disclosure mediated by self-benefits and social benefits. Using survey data from 290 subjects who engage in self-disclosure on journal-type blogs, the author provides empirical support for a positive association between personal factors (bloggers’ habits and the self-benefits obtained) with continuous self-disclosure. No support was found for the impacts of social benefits, including the positive audience feedback. The findings suggest that the determinants of continuous use differ from those of usage intention in the early stage of social networking site adoption. For those users who have become adopters, a social networking site should encourage them to develop the habit of self-disclosure to motivate them to continuously use the website.

The final article of the special issue is entitled “Improving Trust Modeling through the Limit of Advisor Network Size and Use of Referrals.” The authors, Joshua Gorner, Jie Zhang and Robin Cohen, explore how to improve the modeling of agent trust in multi-agent systems that involve a social network of advisors. Trust between buyers and sellers is essential to the sustainability of e-commerce, and social commerce is no exception. The authors proposed three mechanisms to improve the accuracy of recommendations for trustworthy sellers in multi-agent systems: setting a minimum threshold for agent trustworthiness, setting a maximum number of advisors, and using advisor referrals in combination with one of the first two network-limiting techniques. These mechanisms have been demonstrated to be effective for different trust modeling methods, including the *personalized trust model* and the *trust and reputation for agent-based virtual organizations model*. For the *personalized trust model*, the thresholding approach is more resistant to the percentage of advisors who are not trustworthy compared with the maximum number of advisors. In addition, the proposed advisor referral system may result in further improvements in

the accuracy of trust modeling, particularly when the advisor network is initially very small. These findings have implications for social commerce in that buyers heavily rely on referrals from their social connections for the purchasing decisions they make.

6. Conclusions and future issues

Despite the growing industry and research emphasis on social commerce, there is only a limited theoretical understanding of the main issues, and even less substantive empirical grounding on how social media and social networking can be leveraged to enhance e-commerce. We wish to encourage new research on how social networking-enabled capabilities will allow e-commerce to better leverage existing resources, exploit unique organizational competencies, and support valuable customer relationships. We also would like to see others exploring how such capabilities will enable online consumers to place more trust in e-commerce, and receive quality products and services, as well as to gain a deeper understanding of firm-to-firm competition in e-commerce.

We have argued that social commerce is an interdisciplinary subject that simultaneously concerns business, technology, people, and information. These components are interdependent though: they require integration, alignment, and strategic fit with one another. The articles contained in this special issue represent a step forward in our understanding of social commerce. We hope that these new articles and the research framework we have offered will prove valuable in stimulating innovative ideas about business models, technology enablers, information strategy, consumer mobilization, and system designs. This will aid our collective understanding of how social commerce firms develop and deploy the necessary capabilities to position themselves to engage consumers and their social networks effectively. This will also support and sustain the new business models of social commerce, and the value-adding benefits that accrue to firms that are able to devise and orchestrate attractive social commerce business models.

Social commerce continues to evolve rapidly in response to business practice, IT advances, changing consumer demand, and the insights gained from user-generated content. Much remains to be done to achieve best practices in social commerce and to improve returns on social commerce technology investments by converting site visits to purchases on social platforms. For instance, site designs that balance topical content, customer advice, visual cues, and business process support may be helpful for social commerce websites to achieve success (Sun et al. 2012). In addition, conversational marketing may be valuable in brand marketing (Binns 2012). Consumers are driving social commerce and looking for more personalized, informative and engaging experiences online. Retailers should pay attention to what consumers demand from the media and the brands with which they interact.

Given the central position that information plays in our framework for social commerce, social media marketing programs should focus on efforts to create content that attracts attention from potential customers, while encouraging them to share the content within their social networks. Moreover, future research should identify techniques for measuring the economic value of user-generated content (Ghose and Ipeiritos 2009). We have observed that social commerce firms are engaged in a variety of initiatives (e.g., privacy policy-making, building trust, establishing return policies, and offering quality assurance) to enhance firm performance. We also have observed that IT, in its support for location-based and personalized services, plays a significant role in identifying and enabling such opportunities. Retailers will be more successful if they can leverage their social media presence to drive retail sales and enhance the customer experience with meaningful content and connectivity.

There is also a demand for better downstream tracking to more accurately determine the influence of social media on the profitability of business. The role of social networking will be significant in enabling the restructuring of Web 2.0 e-commerce, as firms begin to deal with increasing competition in the multiple channels for product and service delivery. An analysis of the social commerce activities of large corporations (Saundage and Lee 2011) has revealed that there are opportunities for businesses to leverage social media to facilitate transaction-based social commerce activities, such as purchases, payments, and order fulfillment, in addition to pre-transaction and post-transactional social commerce activities, such as marketing and customer support.

Though its positioning may change, the role of social commerce in helping people to shop where they can socialize and socialize where they also can shop will evolve. To achieve a better understanding of the behaviors of social shoppers and sellers in the global marketplace, social psychology, anthropology, communication, and linguistics will be important reference disciplines in support of the development of new knowledge.

There also are circumstances involving the four components of our framework in which it will be interesting to study which component is the most influential driver of the observed outcomes under what conditions, and how such drivers influence the equilibrium among the four components. It will be worthwhile to identify common alignment perspectives by analyzing cases of successful social commerce businesses. In addition, further exploration of social commerce infrastructures that support information sharing and people's interactions will be beneficial.

Finally, we are grateful to have had the opportunity to work to develop the innovative research that appears in this special issue. It will help move our understanding of the social, economic, technological, and informational implications of social commerce forward. It is impossible to have just one special issue to cover the full range of social commerce issues related to the special issue's theme. We look forward to presenting the remaining papers that have been accepted for publication once they have been finalized in a future issue of *Electronic Commerce Research and Applications*.

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