An empirical investigation of information sharing behavior on social commerce sites

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ABSTRACT

Social commerce sites (SCSs), a new model of social media, provide fertile ground for customers to communicate their opinions and exchange product- or service- related information. Given the significant opportunities related to the use of social media data for customers' insight, we explore the factors driving information sharing behavior on SCSs. In this paper, we propose and empirically test a comprehensive theoretical model for customer information sharing behavior through analysis of online survey data as well as network and behavioral usage data of over four months from 1177 customers in a SCS. The research model was empirically validated with the use of both subjective and objective data in a longitudinal setting. Our results show that customer information sharing is influenced by both individual (i.e., reputation and the enjoyment of helping others) and social capital (i.e., out-degrees' post, in-degrees' feedback, customer expertise and reciprocity) factors. This study contributes to the existing literature by highlighting the role of directed social network in customer information sharing behavior on SCSs. We believe that the results of our study offer important insights to the IS research and practice.

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1. Introduction

Social commerce sites (SCSs) become popular online social venues in which customers communicate their opinions and exchange product- or service- related information (Hajli, 2015; Kim & Park, 2013; Olbrich & Holsing, 2011; Pagani & Mirabello, 2011). On sites such as Pinterest.com, Svpply.com, and TheFancy.com, users can share their favorite products, create collections, and interact with other users. Such sites connect users, and let them browse, share, recommend, and rate products. Social commerce sites are growing at amazing rates. For example, Pinterest.com attracted 70 million global users as of July 2013 since its launch in 2010 (Horwitz, 2013), and has more than 100 million active users as of September 2015 (Issac, 2015), making it as one of the fastest growing sites. Prior literature confirmed that online shared product or service opinions and experiences have a significantly influence on customers' purchasing decisions (Cheung & Thadani,

2012; Zhu & Zhang, 2010). In 2013, Nielsen Company[1] revealed that nearly 85% of consumers reviewed online user-generated context before conducting online or offline transaction. To date, the behavior of information sharing on SCSs received limited attention in the Information Systems (IS) literature. Given that SCSs have the potential to transform the way customers acquire and process product- or service- related information, it is of unavoidable importance for academics and practitioners to understand information sharing behaviors of customers on this new form of social media. In particular, it is crucial to understand the reasoning behind customers' willingness to spend their time and effort to contribute and exchange information on SCSs.

Information sharing on SCSs is different from traditional customer reviews in the sense that it focuses on social networks, whereas traditional customer reviews are shared with unknown online crowds. Marsden (2009) revealed that 83% of online customers are willing to share product- or service- related information with their friends, and 67% of online customers are more likely to make their purchase decisions based information provided by

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[1] http://www.nielsen.com/us/en/newswire/2013/the-reviews-are-in-yelp-users-are-four-star-consumers.html.

social network communities. Trusov, Bucklin, and Pauwels (2009) reported that user-generated content on SCSs is seen as a reliable and valuable asset that has significant influence on purchase decisions. Therefore, it is important to understand the factors that influence the willingness of customers to share product- or service-related information on SCSs. Such insights into customers' information sharing behaviors will help us to better understand the popularity of this phenomenon of social commerce, and also assist businesses to develop and improve their social media marketing strategy.

The knowledge management literature (Chai, Das, & Rao, 2011; Chang & Chuang, 2011; Chiu, Hsu, & Wang, 2006; Wasko & Faraj, 2005) acknowledged the importance of social capital in information sharing behaviors on social network sites. Most studies examined the impact of social capital (i.e., cognitive, relational, and structural dimensions) on information sharing in online communities. In this study, we attempt to better understand the influence of directed network structure and other individual factors on customer information sharing behavior on SCSs. Relative to traditional e-commerce sites, SCSs integrate social media functionalities that lead to development of relationships among individuals and groups of customers. Specifically, customers can "follow" other customers and/or "being followed" by others on SCSs. More important, the role of directed network structure has been examined in various contexts, such as inter- and intra- firm networks of formal or informal nature (Rindfleisch & Moorman, 2001) and collaborative group networks (Burt, 2009; Grewal, Lilien, & Mallapragada, 2006). However, the correlation between directed social network structure and customer information sharing behavior on SCSs remains unknown. We draw on social capital theory to examine the role of directed social networks as well as individual factors in customer information sharing behavior on SCSs.

We also notice that most of the existing studies on information sharing behaviors used a subjective approach to explore how and why individuals contribute knowledge to online communities (Chiu et al., 2006; Hennig Thurau, Gwinner, Walsh, & Gremler, 2004; Wasko & Faraj, 2005). In other words, prior studies mainly obtained data from surveys or case studies that are considered to be subjective in respect to the nature of data. These data collection approaches do not take into account the actual usage data that measures information sharing behavior on social media sites. Furthermore, prior studies on information sharing in online communities mostly utilized cross-sectional data collection (Boughzala & Briggs, 2012; Chiu et al., 2006; Ma & Agarwal, 2007; Sun, Fang, & Lim, 2012; Wasko & Faraj, 2005). To address the identified gaps in the literature, we combine subjective (i.e., survey) and objective (i.e., network data and actual usage data) methods to explore the impact of social capital and other individual factors on customer information sharing behavior on SCSs. Moreover, the current study considers a longitudinal design to empirically illustrate the relationship between key antecedent variables and customer information sharing.

To summarize, we believe this study makes four significant contributions. First, previous work has primarily focused on information sharing in traditional online communities. This study examines customer information sharing behavior in a new social media model—SCSs. Second, we consider the directed social network structure and examine its impact on customer information sharing behavior on SCSs. Third, the evidence found in most of the previous studies was derived from data collected through a subjective approach (e.g., surveys or case studies). In this study, we empirically test our research model by analyzing data collected with both subjective (i.e., an online survey study) and objective (i.e., network and behavioral usage data from a real SCS) approaches. Finally, we also empirically validate the research model in a longitudinal setting.

We have organized the rest of this paper as follows: In the first section, we present the theoretical background and literature. Then, we provide a conceptual model for customer information sharing on SCSs. After describing our data source, we explain our empirical strategy and present the results of our data analysis. Finally, we conclude with a discussion of the implications for theory and practice.

2. Theoretical background and literature review

The literature has provided us with a rich theoretical foundation on which to build our research model that explains customers' willingness to share information in online communities. In this section, we first elaborate on the distinctive social media features of SCSs, we then introduce the theoretical foundation of our study. Finally, we review relevant literature on customer information sharing behavior.

2.1. Social commerce sites

Social commerce is defined as "a subset of e-commerce that involves using social media to assist in e-commerce transactions and activities" (Liang & Turban, 2011; p. 6). Enabled by ubiquitously accessible and scalable communication techniques, social commerce has substantially changed the way customers and retailers communicate. Particularly, the linkage of online shopping and social networking sites initiate a new form of communities, namely SCSs (Hajli, 2015; Olbrich & Holsing, 2011). Social commerce includes various social elements into its core functionalities, which is the main difference in relation to traditional e-commerce. SCSs integrate social functionalities such as customer ratings and reviews, user recommendations and referrals, social shopping tools and online communities. These social functionalities create a trusted environment in which friends, family, and acquaintances dynamically interact and contribute content to the referral and promotion of products or services through positive, negative feedback, reviews, ratings, and testimonials. In other words, the traditional research and purchase cycles of online shopping behaviors are shortened through the establishment of a single destination powered by the collective intelligence (Bai, Yao, & Dou, 2015; Laudon & Traver, 2009). Being brought about by the integration of Web 2.0 technologies, e-business opportunities, and online communities, social commerce has several representative functionalities. The success of social commerce lies in the critical mass of buyers and sellers that in turn benefit from the network effects of interactions and contribution. Consequently, users can add personal information on their profiles that is displayed on the home page. They can add self-disclosure tags about styles they like, hobbies and interests. They can also post personal and vision statements. Social commerce leverage algorithmic data management and customer self-service to reach diverse customer segments. Thus, a primary functionality of SCSs is sharing favorite products or services. Users can upload product images or post product or services links. Users can also add tags and descriptions to products or services and organize the same in collections. Most SCSs embed social networking functions. A user can subscribe to another user's sharing by "following" him/her. The following relationship does not need mutual consent, nor has to be reciprocal. The number of followings a user has indicates his/her immersion in the community and attention paid to others' sharing. The number of followers a user has indicates his/her popularity in the community and others' attention paid to his/her product or service sharing. Furthermore, social networking features in SCSs enable customers to observe following customers' behaviors (i.e., out-degrees' post) as well as to obtain feedback and appreciation from follower customers (i.e., in-degrees' feedback).