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The impact of sellers' social influence on the co-creation of innovation with customers and brand awareness in online communities

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ARTICLE INFO

ABSTRACT

This study integrates theoretical concepts adopted from social influence theory, co-creation practice, and brand equity into a single model by examining the role of social comparison and social identity in co-creation activities in an online community context, which is known to affect firms' brand awareness in the Business-to-Business (B2B) marketplace. The model was tested using a dataset gathered via an online survey of four online communities discussing Software-as-a-Service (SaaS) related issues in LinkedIn. Empirical findings from our survey of 190 business professionals indicate that sellers' social identity and social comparison are key facilitators for developing a series of co-innovation activities, and confirmed that co-innovation practices make potential customers more aware of company brands. The results of this study provide new insights into effective B2B social media marketing techniques by elaborating how best to orchestrate co-innovation with online communities to boost brand awareness.

1. Introduction

Dramatic changes in customer tendencies and business environments have forced firms to seek external sources for the creation of innovation to complement internally generated innovations. Collaborations with customers are rapidly becoming a crucial driver of innovation within Business-to-Business (B2B) environments (LaPlaca, 2013). To accelerate innovation, firms are increasingly jumping on the bandwagon of social media, focusing particularly on social media and online communities that provide a platform for interactions with customers (Bosch-Sijtsema & Bosch, 2015; Jussila, Kärkkäinen, & Leino, 2012). Online community participation provides a range of potential benefits, including supporting customer relationship management activities (Agnihotri, Dingus, Hu, & Krush, 2016) and improving brand sales performance (Rapp, Beitelspacher, Grewal, & Hughes, 2013). In practice, leading companies such as Honeywell International, Maersk Line, and MySQL are active participants in online communities as they have found that it enables them to stimulate the innovation diffusion process and build brand awareness at a relatively low cost (Katona & Sarvary, 2014; Parmentier & Mangematin, 2014; Rapp et al., 2013).

Using online communities via social media to accelerate innovation is not without its challenges, however. Most business executives remain skeptical about the power of social media, especially regarding whether investing in social media can increase sales or discover valuable customers. Evidence from B2B firms shows that nearly 60% of business executives perceive social media as being unnecessary or have expressed doubts about its effectiveness in generating sales and supporting brand development (Jussila, Kärkkäinen, & Aramo-Immonen, 2014). A possible explanation for this resistance is that most firms do not provide training, strategy, encouragement, and feedback to guide their employees' interactions with customers via social media (Agnihotri, Kothandaraman, Kashyap, & Singh, 2012). Hence, precisely how these B2B markets become involved in online communities and ways to collaborate in innovations effectively through online community activities, while at the same time maximizing brand value, remain unclear.

Previous studies have generally argued that customers can create innovations and brand value in various social media contexts (e.g., Füller, Scholl, & von Hippel, 2013; Romero & Molina, 2011). For example, Füller et al. (2013) stress the importance of customer engagement for bringing in new ideas and knowledge from user communities that create an effective diffusion of user innovations and strong brands at minimal cost to the company. While knowledge regarding ways to encourage and support innovations created by customers in online communities and identifying customers who will innovate successfully have accumulated in the extent literature, there remains a dearth of

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in-depth insights into which antecedents make customers effective co-creators in innovation. Attention is now shifting to explorations of the role of the seller in facilitating innovation activities (Agnihotri et al., 2012) as Web 2.0 tools such as online communities have begun to be widely applied to B2B innovation activities.

Indeed, an online community is a pull marketing environment on social media, where sellers are regarded as the eyes and ears of their organization who generate digital content (e.g., selling messages) and capture the attention of customers seeking information, products, or brands (Agnihotri et al., 2012). The dissemination of digital content through an expanding network of social contacts is likely to be more effective when sellers are highly engaged; empirical evidence reported by Rapp et al. (2013) confirm that the more deeply sellers are involved in social media, the greater the potential for collaborations between retailers, customers and sellers in terms of customer relationship management and marketing activities also increase. The important role of the seller is emphasized in most studies, especially those focusing on the influence of sellers on buyer-seller interaction relationships in online communities (e.g., Rapp et al., 2013) or how sales representatives can leverage social technologies for interacting with customers (e.g., Moore, Hopkins, & Raymond, 2013). It is therefore slightly surprising that relatively little attention has been devoted to understanding the factors that motivate sellers to engage in innovation activities with customers in online communities. A better understanding of this important aspect would enable firms to strategically manage their co-creation relationships and innovation processes more effectively.

Against this backdrop, we build on the existing work from a seller perspective to address the following research questions:

RQ1: *What motivates sellers to devote time and effort to the co-creation of innovation with customers in online communities*?

RQ2: *Can sellers boost their companies' brand awareness through co-innovation with customers in online communities*?

Our study addresses these questions by examining the impact of sellers' social influence on the implementation of co-innovation with customers and brand awareness in an online community setting. We conceptualize sellers' social influence from the perspective of social identity and social comparison theories and argue that these social influence factors motivate sellers to engage in co-innovation practices. Three co-innovation practices identified from the existing literature, namely opening firms' boundaries, opening products' boundaries and identity convergence around products, are included in our research model. More specifically, this paper examines whether sellers' social identity and social comparison can facilitate efforts to engage with online communities in the pursuit of co-creating innovations with customers and promoting their brand. To meet this aim and to ensure the generalizability of the findings, a questionnaire survey was conducted and data were collected from professionals who actively participate in social media marketing activities with the goals of selling products, brand promotion, and product development on online communities.

This paper contributes to the literature on B2B innovations and social media in several ways. First, earlier studies have employed questionnaire surveys to examine the impacts of collaboration with supplier and lead user activities on product variety (e.g., Al-Zu'bi & Tsinopoulos, 2012), but this study responds to a recent call by Gemser and Perks (2015) for more large-scale and survey-based studies designed to measure and operationalize the related co-creation value constructs. We do this by examining the impact of sellers' social identity and social comparison on the implementation of co-innovation practices with customers in online communities. Second, our findings indicate that social identity and social comparison are strong signifiers of co-innovation in online communities. Sellers in online communities tend to establish their unique professional identity, have a deep understanding of any issues regarding the products that existing buyers

encounter, and promote their product and brand compared to those of their competitors in online communities. The efforts made by sellers within online communities enable firms to share common values with buyers, discover new product usages, and thus increase the likelihood that buyers will support their brand. Third, our examination of the impact of the three different types of co-innovation practices on brand awareness provides actionable insights for marketing managers and sales representatives seeking to orchestrate better online co-innovation activities. For example, we found that brand awareness is enhanced more effectively if sellers solicit contributions from buyers through an innovation process rather than attempting to sense their needs through observation.

The remainder of this paper is organized as follows. The next two sections review the existing literature on the role of the seller in online communities, co-innovation and how online communities are used for co-innovation, and then develop the research model and associated hypotheses guiding this research. Sections 4 and 5 describe the research methodology and present the results of our analysis. Finally, Section 6 discusses the findings of this study and their implications for management scholars and practitioners.

2. Literature review

2.1. The concept of co-innovation

In recent years, the innovation paradigm has shifted from closed innovation, through collaborative innovation and open innovation, to co-innovation (Lee, Olson, & Trimi, 2012). As a result of this shift, the critical role, network relationship, marketing strategy, and collaborative platform for the innovation process are also changing. In traditional innovation approaches, organizations strive to obtain a unique core competence that can be leveraged to strengthen their competitive market position via either internal collaboration networks (e.g., cross-functional integration) or inter-organizational networks (e.g., strategic alliances). However, traditional innovation paradigms suffer from a lack of the complementary resources typically provided by external partners in an innovation ecosystem. To accelerate innovation effectively, a relatively new type of innovation campaign, co-innovation, has emerged based on the concept that value can be facilitated by a co-creation process that integrates resources through activities and interactions with co-creators in the network (Vargo & Lusch, 2004). Following this logic, co-innovation is defined as "a phase of the innovation process resulting from dynamic and on-going interactions among resources, actions, and a group of actors" (Russo-Spena & Mele, 2012, p. 527). Such interactions allow all the stakeholders, including those beyond the boundaries of the firm, to participate in co-creating activities within the innovation process. Participants exchange ideas, solutions, knowledge and expertise and integrate core competences through a collective learning process. A high level of involvement in co-creation activities and of commitment to the product or company makes the collective learning process beneficial to all participants (Lee et al., 2012; Parmentier & Mangematin, 2014).

Co-innovation is particularly relevant for value creation with customers (Lee et al., 2012). Here, the customer is viewed as a co-creator (or co-producer) of innovations in areas such as idea generation and new product development. The importance of customer involvement in the co-innovation process has been confirmed by many researchers and practitioners (see, for example, Lee et al., 2012; Poetz & Schreier, 2012; Sawhney, Verona, & Prandelli, 2005; Terwiesch & Ulrich, 2009). Terwiesch and Ulrich (2009) report that around 25% of innovation opportunities are generated based on customer requirements and interactions with customers. Exploring the value of crowdsourcing, one study from Poetz and Schreier (2012) indicates that ideas created by professionals (e.g., marketers) score significantly lower in terms of novelty, customer benefit and overall quality than ideas created by potential customers. To facilitate customer involvement, some researchers have