Leveraging Co-innovation Practices on Business-to-Business Virtual Communities

Emergent Research Forum Paper

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Abstract

This study integrates the lens of social influence theory, virtual communities of practice, and practice-based view into a theoretical model to understand the role of social influence in B2B virtual communities in the collaboration of innovation activities with co-creating users. Specifically, the main goal of this study is to unravel the relationships among social influence, contribution behavior, and co-innovation practices in the B2B virtual communities of practices (VCoPs) context. The model will be tested using a dataset gathered via an online survey and secondary data from four large-scale Software-as-a-Service (SaaS) forums in LinkedIn. Empirical findings from our survey of business professionals in SaaS-based companies will measure how social identity and social comparison act as key activators to develop co-innovation practices through users’ contribution behavior. The contributions of this study will provide new insights into B2B VCoPs and social media literature by elaborating how to orchestrate innovation with virtual communities users.

Keyword

Business-to-business, virtual communities of practice, practice-based view, co-innovation.

Introduction

The popularity of virtual communities on social media has captured the attention of business-to-business (B2B) companies. The use of social media for business purpose has become an important catalyst for facilitating interactions between firms and customers, boosting products/services innovation, and increasing brand recognition and awareness (Katona and Sarvary 2014; Rapp et al. 2013; Yadav and Pavlou 2014). Indeed, many famous B2B practitioners such as Honeywell International, General Electric (GE), and Maersk Line host online communities through brand pages, topical interest forums, and chat rooms on the various types of SNSs that allows their customers to support and stimulate the innovation diffusion process of products and thus achieve their brand performance (Katona and Sarvary, 2014).

Virtual communities of practices (VCoPs) is one of the by-products formed in social media portal. Individual business representatives participate virtual communities on social media to share information and acquire up-to-date knowledge. These virtual communities allow B2B practitioners to focus in practices co-creating job related knowledge (Kietzmann et al. 2011). However, unlike business-to-consumer (B2C) or consumer-to-consumer (C2C) companies, Business-to-Business (B2B) companies implementing social media to be one conversation channel need to clarify the unpredictable effect and formulate straightforward social media strategies embedded in various business activities (Jussila et al. 2014; Michaelidou et al. 2011).

To address this issue, researchers have begun to devote to investigating whether social media utilization is beneficial for conversations in B2B VCoPs (e.g., Jussila et al. 2014; Swani et al. 2014) and the effect of
maintaining buyer-supplier relationships (Rapp et al. 2013). Yet research on VCoPs in a B2B social media context is still in its infancy. Therefore, the goal of this exploratory study is to adopt social factors to discuss the contribution behavior of B2B social media users in a VCoPs setting. Secondly, we study how VCoPs via social media support the co-creation performance in innovation. We set out to answer the following two research questions:

1. Can users’ perception of social identity and social comparison motivate their contribution behavior on online B2B topical forums?
2. Can users improve co-innovation practices with other members on online B2B topical forums through their contribution behavior?

The remainder of this paper is organized as follows. The next section reviews the existing literature on B2B VCoPs via social media portal. Then we will discuss our research model and associated hypotheses. The later section describes the research methodology and the final section proposes the expected contributions of this study.

**Literature Review**

First of all, previous literature has studied the B2B VCoPs development on social media. Researchers have identified the importance of adopting social media portal as one competitive business strategies (e.g., Jussila et al. 2014; Michaelidou et al. 2011; Swani et al. 2014). Furthermore, some studies demonstrates how B2B companies formulate co-creation practices via social media portal (i.e., Katona and Sarvary 2014; Roser et al. 2013). Katona and Sarvary (2014), for an instance, describe the journey of incorporating social media into the business strategies in the largest container shipping company and provide guidelines about implementing co-creation practices on various virtual communities via social media portals such as Twitter, LinkedIn, and Google+. Meanwhile, Roser et al. (2013) systematize the portfolio of co-creation practices in terms of co-creator type, purpose, locus, involvement, time and incentives and compare these co-creation practices between B2B and B2C companies as well as crowd-sourced versus non-crowd-sourced approaches. These studies illustrate the co-creation practices in the virtual communities via social media portals and the values gained from these practices.

On the other hand, some researches underscore the impact of individual behaviors and interactions with stakeholders on contribution behavior in the virtual communities environments. For example, by utilizing secondary data collected from user support forums, Jabr et al. (2013) indicate that feedback-based recognition in a user-supported forum strongly affects users’ pro-social behaviors toward increasing their contributions on helping other users to solve their problems. Chompis et al. (2014) explore the determinants of user satisfaction within virtual communicates in B2B financial services. They conclude that user satisfaction would lead to the long-term relationships between financial institutions and their clients. Both studies focus on the perspective of B2B users’ behaviors, and elucidate what incentives drive users to make a greater effort to contribute to the online virtual communities. Thus, we adopt social factors as the motivators of users’ contribution behavior and study the impact of users’ contribution behavior on the performance co-creation practices.

**Theoretical Framework**

In our study, in order to elucidate how co-creation practices are developed on virtual communities, we adopt virtual communities of practices (VCoPs) lens rooted in our theoretical framework. VCoPs theory that is built by Wenger et al. (2009) is extended from the theory of communities of practice (CoPs) (Wenger 1998). CoPs can be defined as “groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger 2010).” In an Internet setting, VCoPs rely on active members who are practitioners or experts in the specific domain of interest, social structure that is created within the community to assist in knowledge creation and sharing as well as social learning process that allows community members to learn through both instruction-based learning and group discourse (Wenger et al. 2009).

Meanwhile, our study specifically focuses on co-creation practices in innovation process. We adopt the idea of co-innovation from previous study and refer co-innovation as “a platform where new ideas or approaches from various internal and external sources are applied differently to create new value or experience for
all stakeholders (Von Hippel et al. 2011; Lee et al. 2012).” The nature of VCoPs via social media provides a portal allowing users to formulate a co-innovation platform. This platform supports B2B practitioners in convergence of ideas, collaborative arrangement, and co-creation of experience with stakeholders (Lee et al 2012). Base on the co-innovation capability of VCoPs, users receive co-creation value to improve their own competitive advance. We recognize the great value of co-innovation in VCoPs via social media portal. Hence, we choose to focus on co-innovation in our exploratory research paper.

Moreover, we employ practice-based view (PBV) that emerged from strategic management point-of-view to explain how to link the practices with performance outcomes. The core component of PBV is the practice itself, defining as “an activity that a variety of firms might execute” (Bromiley and Rau 2014). A practice can be regarded as the combination of the subject, the action, the tools (Gummesson et al. 2012) or a set of activities, routines and material arrangements (Schatzki 2005; Schatzki et al. 2001). PBV amplifies that firms leverage various organizational practices to improve their business performance. Combining the perspectives of VCoPs and PBV, our study aims to disentangle the relationships among social influence, contribution behavior, and co-innovation practices. Specifically, we examine the impacts of social identity and social comparison on members’ contribution behaviors and co-innovation practices.

A visual representation of the theoretical framework can be seen in Figure 1.

Hypothesis Development

Social influence as Drivers of Contribution Behaviors

In our research context, we contend that social comparison process motivates people to achieve goals through evaluating the self with other members on social media. The main reason is that people want to access external information to evaluate self-value (Du Plessis 2010). Through this evaluation process, people attempt to construct a social reality in which they are better than others in a virtual reality (Suls and Wheeler 2000, p34). Meanwhile, Chen et al. (2010) interpret social comparison as “a natural, non-pecuniary incentive mechanism” that motivates users’ contribution in a virtual environment (p. 30). Hence, we argue that users will produce the perception of social comparison through their experience on B2B social media platforms. The social comparing perception facilitates users’ willingness to improve their own standard toward to higher goals (Blanton et al. 1999; Helgeson and Mickelson 1995; Huguet et al. 2001; Michinov and Primois 2005; Seta 1982; Vrugt and Koenis 2002; Wood 1989). Through this process, users on B2B VCoPs will increase their contribution and become more active in participating community activities.

Hypothesis 1: Social comparison has a positive impact on B2B users’ contribution behaviors.

Furthermore, previous researches have found that online users want to connect to others and receive feedbacks from their peers (Baumeister and Leary 1995; Brewer 1991; Donath 1999; Forman et al. 2008;
Hornsey and Jetten 2004; Jones and Pittman 1982; Ma and Agarwal 2007; McKenna and Bargh 1999; Swann Jr 1983; Turkle 1996; Tyler et al. 1996). In the B2B social media setting, social identity can be defined as “users increasingly seeking for a sense of ‘belonging’ to specific web interest groups and wanting to manage their image in these online environments” (Wirtz, Schilke, & Ullrich, 2010, p. 276)). In a VCoPs setting, users produce strong feeling of social identity, and the feeling of “identified as a group member” influences their content generation behavior. We then apply social identity concept to study users’ contribution on B2B VCoPs. Users perceiving high level of social identity would be more likely to improve their contribution for enhancing the feeling of belonging, pride of participating, or perception of respect (Blader & Tyler 2009).

Hypothesis 2: Social identity has a positive impact on B2B user contribution behaviors.

The Roles of Social Influence in Developing Co-innovation Practice

From previous discussion, we propose that social comparison can facilitate individuals to increase their contribution on B2B VCoPs. Michinov and Primois (2005) emphasize social comparison will improve individual productivity and creativity. Dugosh and Paulus (2005) also support that individuals exposing to more ideas produce more innovation ideas and increase the total number of group level idea generation through a social/cognitive process. Meanwhile, social comparison theory explains the innovation diffusion process that when individuals experience an empirically ambiguous question, they tend to make a decision by relying on their social cues from their peers. Individuals compare their own situation with other close contacts adopting similar innovation or observe their decision making process on innovation (Abrahamson and Rosenkopf 1997; Burt 1987; Coleman et al. 1966; Festinger 1954). In a B2B VCoPs setting, individual sharing innovative ideas or information will co-create benefits for the community in innovation practices. Users who receive innovative ideas from others can apply these ideas to their own scenario or provide feedback to improve these ideas. We hence argue that users on a B2B VCoPs will co-create advanced outcome in innovation practices through the process of comparing with others.

Hypothesis 3: Social comparison is positively related to co-innovation practices.

Virtual communities of practice theory has indicated that social identity acts as a fundamental base to support the social activity (Wenger 2010). We argue that when users perceive higher social identification feeling and recognition from other peers in an online virtual community setting, they are more attached to the community and willing to contribute more efforts on co-innovation. Maden and Köker (2013) investigate the impact of social identity on consumer innovativeness. They argue that individuals are willing to improve their innovation capability when they identify themselves as part of the group. In our study, we are interested in the impact of users’ perception social identity on B2B social media. We argue that users would like to increase their efforts on co-innovative practices when they perceive strong social identity. Jacobs (2013) argues that social identity support the co-innovation practices in multiple way such as adopting common goals, sharing an innovation ethos, or encouraging experimentation reflection. In the case of open source community, Osterloh and Rota (2007) indicate that members are enthused about sharing the creativity on their software with others for the purposes of gaining high reputations in the community, establishing their identities, and improving their career prospects. We argue that, in a B2B social media platform, users work as virtual communities of practice for innovation, and social identity will improve their performance.

Hypothesis 4: Social identity is positively related to co-innovation practices.

The impact of contribution behavior on co-innovation practices

B2B VCoPs provide the environment where business representatives can co-create innovative knowledge through a social media portal. These virtual portals enable users to reach their providers, customers, or consultants to gain a wealth of information about product and service. Zwass (2010) propose the idea of intellectual space for co-creation and contents that virtual communities (VCs) are the primary area of co-creation development. VCoPs facilitating innovative ideas creation and collaboration through the content contribution improve the co-innovation performance (Jeppesen and Frederiksen 2006; Kosonen 2009). Based on common interests, goals, and practices, members of VCoPs share their own professional knowledge as they engage in social interaction process (Chiu et al. 2006). These B2B communities thus provide the platform for industry practitioners to co-create innovation value (Zwass 2010). Our paper
identifies the individual social factors as the antecedent of content contribution. Meanwhile, we content that the accumulation of VCoPs content contribution will improve co-innovation practices. We operationalize the contribution behavior as users provide knowledge, share information, and support stockholders through various social media function such as posting, private/ group message, announcement or etc.

Hypothesis 5: Contribution behavior on content production is positively related to co-innovation practices.

Research Methodology

The above hypotheses will be tested using a dataset gathered via a online survey and achieved behavioral data of B2B professional virtual communities in LinkedIn, which accumulated more than 87,000 registered members belonging to four Software-as-a-Service (SaaS) forums in November 2014. We will design a longitudinal and quasi-experimental field study that contains the combination of both self-reported and secondary behavioral data. This approach allows us to investigate the effects of social influence and content contribution behavior that researchers are hard to manipulate (Chen et al. 2011; Moorman et al. 2005; Tsai and Bagozzi 2014) and offering greater validity on causal inferences than purely statistical adjustments (Shadish et al. 2002). In the first stage, we will employ the survey to measure their perception of social identity and social comparison on the four SaaS forums. We will then obtain permission from the forums’ managers to allow us to post the survey link at the group page. In the first part of questionnaire, participants will be asked to provide the pseudo in community user name, and other demographical information for data match-up in the next two phases. After two weeks, we will use web crawler to collect secondary data from the social media portal to study users’ contribution behavior. We will collect samples over one month matching up with the records from the first self-reported measures. We will select each observation corresponds to a unique member that has contributed at least one discussion or comment posted on the forum. At the final stage, we will use questionnaire items to measure their perception of co-innovation practices.

Conclusion

Our research focuses on B2B users’ social influence, contribution behavior and co-innovation practices on online topical forums, rather than discussing the effect of VCoPs and social media in general. In this study, we not only focus on exploring the antecedents of co-innovation practices, but also examine the impact of contribution behavior on co-innovation empirically. We plan to examine the impacts of these users’ social influence and their contribution behavior to support B2B VCoPs via social media research. The result of this study would provide practitioners the viewpoints for improving their B2B social media portal.

REFERENCES


