The value of social media for innovation: A capability perspective☆

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ABSTRACT

Firms increasingly employ social media for innovation, yet current literature offers little guidance for developing their strategic uses. This study applies a qualitative, theory-building approach to derive a conceptual framework of the capabilities that allow companies to benefit by using social media throughout their innovation processes. This framework, designed to support applications of social media for innovation, sheds light on three key capabilities and related resources: social media managers who orchestrate social media activities across the innovation process; top management that cultivates support, team empowerment, and test-and-learn cycles; and agile processes that facilitate rapid decision making and knowledge flows across teams. This article enriches organizational capability theory as it pertains to innovation, and it provides managers with guidance for implementing social media strategies in practice.

1. Introduction

The proliferation of social media platforms coincides with the expanding open innovation paradigm, in which firms integrate new ideas and feedback from various internal and external sources (Lee, Olson, & Trimi, 2012). In the quest to gain new insights and acquire additional knowledge, firms open their value creation processes and collaborate with various stakeholders, including customers, suppliers, and employees (Felix, Rauschnabel, & Hinsch, 2017; Kazadi, Lievens, & Mahr, 2016). In addition, a recent survey confirms that 82% of companies use social media to enhance their innovation processes (Roberts & Piller, 2016), benefitting from user-generated content and social networks that reflect customers' preferences (Fjeldstad, Snow, Miles, & Lettl, 2012). As a good case in point, "Threadless.com" offers a full lineup of apparel, accessories, home decor, and footwear, based on thousands of designs submitted and voted on by its online community. Similarly, the My Starbucks idea platform has produced more than 300 ideas from the online community that the company subsequently has implemented.

Social media in turn might benefit the different stages of the innovation process uniquely. Firms might create crowdsourcing platforms to gather ideas in the ideation stage (e.g., Innocentive[1]), use toolkits to enhance product designs in the development stage (e.g., Nike[2]), or rely on virtual product testing (e.g., Ipsos[3]) in the launch phase (Dahlander & Wallin, 2006). Yet understanding of the best ways to leverage social media across these various stages remains limited, fragmented, and mostly anecdotal (Bashir, Papamichail, & Malik, 2017; Roberts & Piller, 2016). Systematic insights are needed to help organizations maneuver the shift toward individual and networked customers, which is inherent to social media (Labrecque, vor dem Esche, Mathwick, Novak, & Hofacker, 2013). For example, companies must establish conditions and incentive schemes to empower customers to co-create products or help launch them as brand ambassadors. They also need to address the risks of proactive involvement through social media, including coordination mechanisms and control considerations, which becomes particularly difficult when we note the convoluted nature of both platforms and firms today.

In particular, social media platforms are highly interactive, with specific functionalities, and they evolve quickly and without control over their empowered users (Peters, Chen, Kaplan, Ognibeni, & Pauwels, 2013). Firms require careful orchestration of their digital resources, processes, and competencies to guide social media practices (Fichman, Dos Santos, & Zheng, 2014), especially for the innovation process that demands a strict series of actions, including stage-by-stage approval, long development cycles, regular measures of key factors

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(e.g., money, time), and strong governance (Cooper, 2008). Each stage of the innovation process also pertains to different web techniques (e.g., online contests for idea generation, virtual product testing for development, user sponsorship for launch) and distinct stakeholders. Therefore, firms need different capabilities to cope with these particularities and ensure effective, efficient innovation processes.

Considering the lack of systematic, theoretically based explanations of which capabilities should be created and how they should be managed in the particular context of innovation processes (Roberts & Candi, 2014), research is needed to clarify the benefits sought by firms when they use social media in the different stages of their innovation processes and the organizational capabilities they need to achieve effective uses of this tool. Accordingly, this study complements previous investigations of social media management (Bianchi & Andrews, 2015; Felix et al., 2017; Kietzmann, Hermkens, McCarthy, & Silvestre, 2011) by focusing on specific capabilities required by the innovation process. In turn, it contributes to marketing and innovation management literature in three main ways. First, this research delineates the objectives that firms pursue when they use social media in each step of the innovation process and thus identifies specific capabilities underpinning these goals, including key capabilities associated with social media and platforms' particularities. Second, to extend recent findings by Felix et al. (2017) that address strategic uses of social media, this study provides a rich, comprehensive framework of organizational capabilities at strategic and operational levels, applied specifically to the innovation process. Third, this research offers a nuanced picture of required social media capabilities and organizes them in a three-stage model of maturity levels. The associated comparison of firms with distinct social media and innovation proficiency provides managers with guides for assessing their own practices and prioritizing their social media investments. Taken together, these exploratory findings offer theoretical insights into the way firms should leverage social media tools throughout the innovation process, which in turn can help managers set up their own social media strategies to support innovation.

2. Theoretical framework

2.1. Social media in the innovation process

Social media are highly interactive platforms that allow individual users and communities to share, co-create, discuss, and modify user-generated content (Piller, Vossen, & Ihl, 2012). Spanning channels such as blogs (e.g., Huffpost), microblogs (e.g., Twitter), social networking sites (e.g., Facebook, LinkedIn), and collaborative platforms (e.g., user forums, Wikipedia; Roberts, Piller, & Lüttgens, 2016), social media have radically changed the way organizations and their employees interact, both within and outside company boundaries, by providing a wider range of interaction opportunities (Aral, Dellarocas, & Godes, 2013). They also represent a tremendous source of data and business intelligence, in the form of market insights and customer feedback, that can inform different stages of innovation processes (Roberts et al., 2016). In particular, social media use in innovation processes might be proactive (e.g., online contests, word-of-mouth campaigns) or reactive (e.g., monitoring, data mining), according to the stages to which it applies (Culnan, Mchugh, & Zubillaga, 2010).

Traditionally, the innovation process is driven by the firm and consists of different stages from ideation to product launch. In the ideation stage, firms leverage social media to increase inputs from consumers, with significantly less costs than are required by traditional methods (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010). For example, netnography applies anthropological research to the Internet and can capture attitudes, perceptions, and behaviors (Kozinets, 2002; Piller et al., 2012), so it effectively gathers innovative ideas and solutions by listening in on users' conversations on social media. Using netnography, Beiersdorf gathered insights shared by online users to learn that they wanted an antiperspirant that would not leave stains on clothes, leading

to the innovation of its Nivea Black & White deodorant (Bilgram, Bartl, & Biel, 2011). Text and data mining offer alternative means to collect market insights without actively involving users, because they extract innovation-related information from unstructured text or data (Christensen, Nørskov, Frederiksen, & Scholderer, 2017). These data are rich and often contain additional information, such as tags that indicate users' profiles and location (Moe & Schweidel, 2017).

In contrast, online contests and crowdsourcing involve active participation by stakeholders who offer innovative ideas in response to requests from the firm. Among its many online contests, American Express launched the "YourBuzz[4]" application that consolidates customers' feedback from CitySearch, Yelp, Facebook, Twitter, and other popular websites. In crowdsourcing communities, multidirectional exchanges of comments include customers, their peers, and the firm (Chan, Li, & Zhu, 2015). Although it initially was designed to be a contest platform just for students, the Dell Social Innovation Challenge has grown into one of the most famous crowdsourcing sites, with thousands of ideas submitted by members and non-members of the community each year. Such contests and crowdsourcing efforts also can be supplemented by monetary or non-monetary rewards.

During the development stage, project wikis and shared collaboration spaces also might encourage concepts, prototypes, and evaluations, because they facilitate interactions and information sharing across innovation teams (Marion, Barczak, & Hultink, 2014). With these tools, firms can develop design toolkits and apply them creatively to product design (Cui & Wu, 2015). For example, BMW-Mini's website supports online customization, and then users' designs can be shared with peers through social media to gather feedback (Piller et al., 2012). However, few studies consider social media uses during the development phase; instead, it appears that many firms tend to rely more on internal platforms and closed networks for this stage (Marion et al., 2014).

In the launch stage, awareness is key (Hoyer et al., 2010); it might be created by releasing information to online communities to reach mass markets (Dahlander & Wallin, 2006). Kim and Hanssens (2017) suggest that investing in blogging activities during the pre-launch phase is more effective than traditional advertising in terms of prompting consumers to search for new products and evoking viral effects. After the launch, social media also grant companies access to further feedback, strengthening the sense of community and enhancing customer engagement with the brand or its products (Mangold & Faulds, 2009). For example, Audible[5] offers more than 180,000 audio books, and by employing word-of-mouth advertising and social media marketing campaigns, it created partnerships with influential YouTube contributors to increase other customers' awareness of and engagement with its offerings.

However, for these objectives to be realized, firms must use social media strategically, with the support of their unique capabilities. In particular, firms must acquire value-creation and value-appropriation capabilities (Mizik & Jacobson, 2003). We argue that organizational capabilities, the cornerstone of any effective strategy, facilitate the creation and capture of value, as is central to strategic management (Bowman & Ambrosini, 2000).

2.2. Organizational capabilities for social media use in innovation processes

Marketing, innovation, and general management research identify key resources and capabilities that may help firms leverage social media during their innovation process, according to the specific features of social media and innovation. First, resources represent the firms' ability to conceive of and implement strategies (Porter, 1981). Tiago and Veríssimo (2014) argue that financial resources can facilitate interactions with customers, provided enough time and human capital are

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[4] https://yourbuzz.com.cutestat.com/
[5] https://www.audible.com/