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HOW DOES ENTERPRISE SOCIAL MEDIA HELP RETAIL EMPLOYEES INNOVATE?

Research in Progress

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Abstract

An increasing number of organizations have installed enterprise social media (ESM) platforms to allow employees to collaborate, work independently, and to innovate more easily. While research has started to explain how such technologies can lead to improved collaboration and productivity, their role in assisting employees in innovation processes remains unclear. In our research-in-progress we examine the case of a global retail organization that adopted ESM for all employees with the view to foster employee-driven innovation. We report on our on-going data collection and analysis, in which we focus on the salient mechanisms and contingency factors why ESM under some conditions facilitates employee-driven innovation and why under some conditions it does not. We report on on-going data collection, data analysis strategies and emergent findings, and conclude with a brief outlook on our future research strategies.

Keywords: Enterprise Social Media, social networks, employee-driven innovation, case study.

1 Introduction

In their efforts to identify and develop innovations such as new business models, products, and services, or processes, organizations increasingly turn to information technology (IT) to assist them (Brem and Voigt 2007; Paolacci et al. 2010). A key class of technology that has proliferated over recent years because of its allure to assist organizational innovation efforts is known as *social media* (Kane et al. 2014). Social media describes online platforms that allow users to interact with each other and to maintain interpersonal relationships (Chen 2013). While open social media platforms such as Facebook or Twitter are public, *enterprise social media* (ESM) platforms are bounded within a particular organization and allow employees to (1) construct (semi-) public profiles within the organizationally bounded system, (2) articulate lists of other employees with whom they are connected, and (3) view and traverse both their lists and those made by others within the organization (Boyd and Ellison 2008). Both ESM and more open social media have led to new routines in the organizational innovation process. For instance, the use of social media has been linked to phenomena such as crowdsourcing (Doan et al. 2011) or open innovation (Westergren and Holmström 2012). Concerning ESM specifically, it has been argued that affordances relating to network transparency, content flow and access, and relational ties (Boyd and Ellison 2008) can allow members of an organization to connect, share, develop, and morph innovation ideas independent of geographical, temporal, structural, or organizational dispersion. Whether these affordances are realized for organizational innovation, however, remains to be seen. In fact, while many organizations implement ESM the processes needed around them to use the provided data expediently are mostly missing (Kane et al. 2014).

Given the absence of substantial theoretical knowledge about the connections of ESM and innovation within organizational contexts, we set out to provide a substantive empirical contribution. Specifically, our research examines the introduction and adoption of ESM by a retail organization that has the ambition to foster employee-driven innovation (Kesting & Ulhøi, 2010; Smith, 2008), that is, employees' intentional ideation, introduction, and realization of new ideas that benefit the organization (Janssen, 2000; Wang et al. 2015). We study the case of one retail organization that is revenue wise amongst the 20 largest retail organizations worldwide (Deloitte 2013) and has introduced ESM to connect approximately 200,000 employees in 2011.

In this research-in-progress paper we provide a view on our on-going data collection and analysis as well as the emergent findings. We will show that ESM can lead to employee-driven innovation under conditions of a supportive organizational culture, an individual innovation-driven mindset and an interpersonal desire to collaborate. We explore qualitative data in an emergent conceptual framework that conceptualizes these emergent categories and their associations. We relate the emergent findings back to literature and then report on our current research strategy decisions concerning further data collection and analysis. In doing so, our ambition is to provide empirical knowledge to answer the following research question:

How does the use of Enterprise Social Media influence employee-driven innovation?

2 Research Background

ESM is an emergent form of Web 2.0 technology that has given rise to new forms of collaboration (McAfee, 2009); it is considered to foster knowledge conversations (Majchrzak, Faraj, Kane, & Azad, 2013) and to reduce knowledge sharing barriers inside organizational boundaries (Fulk & Yuan, 2013). ESM differs from traditional Information Systems (ISs) by enabling collaborative content creation and modification and its potential to foster collective intelligence (De Hertogh et al., 2011). For example, social bookmarking systems let employees discover knowledge that is considered as interesting by other employees, thereby reducing efforts to search and filter external information, at the same time enabling identification of experts in the organization (Gray et al., 2011). However, whereas ESM use is usually expected to be beneficial for organizations (e.g., De Hertogh et al., 2011; Kaplan and

Haenlein, 2010; McAfee, 2009), research on ESM is in an early stage (Leonardi, Huysman, & Steinfield, 2013) and there exists little empirical evidence (Gray et al., 2011) and measures (Aral et al., 2013) of its value (Kane et al. 2014).

One of the potential benefits of ESM is its capability to foster creativity (Wagner & Jiang, 2012) and employee innovativeness (Gray et al., 2011). ESM can act as innovation ecosystem infrastructure (Nambisan, 2013), foster discovery and innovative reuse of existing knowledge (Leonardi, 2014), enable interaction on a large-scale (Hienerth et al., 2011), and provide a shared space for emerging relationships (Nambisan, 2002). Interaction between individuals in turn is important for combination of different insights and experiences, which enables collaborative innovation efforts and outcomes that exceed the abilities of individuals working in isolation (Hargadon and Bechky, 2006), a phenomenon often called collective intelligence (Gregg, 2010). However, whereas networks between individuals have been shown to be an important enabler of innovation and problem solving (Baer, 2012; Hargadon and Bechky, 2006), and ESM can enable network formation (Aral et al., 2013), little is known about the role of ESM in fostering employee-driven innovation so far. Furthermore, recent studies on ESM indicate that contextual factors might influence the value of ESM and thus, also its role in fostering employee-driven innovation. For example, whereas younger generations may respond positively to ESM (Leidner et al., 2010), as they are accustomed to using ubiquitous ISs and sharing information online (Vodanovich et al., 2010), employees from older generations might have more negative views regarding its use (Koch et al., 2013). This research in progress contributes to the understanding of both the influence of ESM on employee-driven innovation and the contextual factors that hinder or foster ESM based employee-driven innovation, that is, influence its value.

3 Research Method

To examine our research question, our strategy is to study one case in depth and to develop a theory based on the empirical data collected. Single case studies are well-accepted in the IS literature (e.g., Davidson & Chismar, 2007; Levina & Ross, 2003; Majchrzak, Rice, Malhotra, & Ba, 2000; Sarker, Sarker, Sahaym, & Bjørn-Anderson, 2012; Silva & Hirschheim, 2007; Vlaar, van Fenema, & Tiwari, 2008), because they allow researchers to develop a deep understanding of ISs in use in their socially embedded contexts (Orlikowski & Iacono, 2001) and of organizational actions related to their use (Klein & Myers, 1999). Our case site is that of a global top 20 retail organization (Deloitte 2013) where

- a) innovation is a strategic imperative across all levels of the organization, that is, employees are actively and consistently encouraged to contribute to innovation,
- b) innovation processes exist that guide development of products, services and processes from an initial idea, and
- c) an ESM platform was installed to support the innovation purpose and process.

Retail organizations, in general, make for revelatory case studies in innovation because they are under imminent pressure to innovate, due to the disruptive potential of IT (Lewis & Dart, 2010). The case organization has established innovation management structures and processes and uses an ESM platform to foster employee productivity (e.g., flexible work arrangement), collaboration, and innovation. Prior to introduction of the ESM platform, email was the dominant electronic communication medium, but only available for approximately 27,000 employees from corporate headquarters. Between 2011 and 2014 the ESM platform was rolled out to approximately 200,000 employees located in three different Asia Pacific countries to provide all employees access to ESM features such as sending and receiving emails, posting and reading in communities, and engaging in instant messaging and video conferencing. At the time of data collection there existed approximately 50 communities on the ESM, most of them dedicated to different trading brands (i.e., department stores) or functions (e.g., corporate communications and IT) and each having between 100 and 2500 members. Two of these communities were exclusively dedicated to supporting employee-driven innovation, called 'Creative Thinking' and 'Innovative Ideas' communities.

3.1 Data Collection Procedures

The two main methods for data collection were interviews and review of ESM content about innovation initiatives. As a primary source of data, we conducted semi-structured, open-ended interviews with employees who had been using the ESM for about one to two years for work practices. In this paper, we focus mainly on this interview data. The interviews ranged from 45 minutes to an hour. Interview questions were structured around technology, work practices, and innovation. Open questions were asked such as (a) What has been your experience with using technology?, (b) What is your understanding of innovation?, and (c) Do you think the ESM platform helps or hinders innovation? The instrument was piloted through two test interviews leading to minor revisions. To help with clarification of terms further information was provided to the interviewees prior and during the interviews, which defined terms and concepts. The protocols used are available from the authors upon request. All interviews were recorded and transcribed.

3.2 Data Analysis Procedures

The collected interview data was stored and preliminary analysis was conducted using the qualitative data analysis application NVivo (Bazeley, 2007). In examining our data, we followed a three-stage process of open, axial, and selective coding, building upon and adapting the recommendations by Strauss and Corbin (1998). Text interviews were coded into common categories and subcategories within NVivo for the purpose of querying and reporting on the interview data and building research models. In the first stage (open coding) the text was analysed line-by-line, resulting in a total of 252 categories and subcategories. In the second stage (axial coding) relationships between the categories and subcategories were established and individual categories were refined, resulting in identification of six main categories: *cultural norms*, *mindset*, *collaboration*, *sharing ideas*, *competition*, and *learning fast*. In the third stage (selective coding) employee-driven innovation was identified as the main phenomenon and all categories were linked to this phenomenon. We will continue with our data analysis as the study progresses.

3.3 Participants

Employees were invited to participate in the study via a flyer posted to the 11 major ESM communities in May 2014. Eight of these communities were dedicated to different trading divisions, two to innovation, creativity and ideation, and one to the IT department. Employees use these communities to highlight achievements, post new ideas and share information with other members. At the time of posting the flyer each of the trading division communities contained between 200 and 2500 members, each of the innovation communities about 100 members, and the IT community about 600 employees. A total of 31 responses to participate were received from members of these 11 communities, and 30 face to face, phone, and videoconference interviews took place during July and August 2014. One interview did not eventuate as the employee went on leave of absence. Participants came from 18 different departments within the case organization; seven were employees in the IT division, with the remaining 23 participants spread across 17 different departments. Interview participants held a range of different job roles from store manager, to assistant store manager, to corporate or support office roles. The majority of participants were male (22 out of 30) and between 26 and 45 years old (21 out of 30). Just over half of the participants (18 out of 30) had been employed with the retail organization for 6 to 15 years. Furthermore, less than a third of the participants (8 out of 30) had been using the ESM for less than 1 year, the majority (18 out of 30) had been using the ESM for 1 to 2 years, and a minority (4 out of 30) had been using the ESM for 3 years.

4 Case Description and Emergent Findings

We commenced our research with the question of “*How does the use of ESM influences employee-driven innovation?*” and began our field work by interviewing participants from the retail organiza-

tion. During the interviews participants provided us with information about themselves, their technology experience, their use of technology and ESM for work, and their perspectives on innovation. Next, we started to analyse the information with grounded theory coding techniques and identified six main categories (i.e., cultural norms, mindset, collaboration, sharing ideas, competition, and learning fast). The establishment of relationships between these six categories resulted in our emergent framework of factors influencing the use of ESM for employee-driven innovation, which is shown in Figure 1.

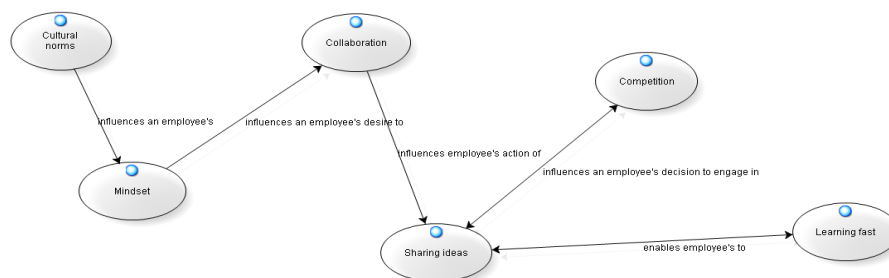


Figure 1. Emergent framework of factors influencing ESM use for employee-driven innovation

Cultural norms were identified to have a major influence on employees' mindset and their subsequent behaviour towards innovation and using a collaborative ESM for innovation. If employees use ESM for collaboration, they usually initiate innovation by sharing ideas on the ESM platform with other employees. Sharing ideas leads to a situation in which ideas can be refined, adapted, and advanced based on feedback from and collaboration with other employees. Sharing of ideas is influenced by and can influence competition between employees, as for example, competition for better performance motivates employees to read, view and share related ideas on ESM. In addition, shared ideas can serve as a foundation for new ideas. Thus, learning fast (i.e., acceleration of the learning curve) is both a motivator of idea sharing and positive effect of ESM, as employees can build on existing ideas, identify whether ideas are already available, or canvass and receive related knowledge from other employees. In the following section we will provide summary information about each of the main categories of our logical framework.

4.1 Cultural Norms

In our context, cultural norms refer to the unwritten or invisible rules or norms of the organisation (i.e., the way things are done). For example, one participant described culture as: *"It is the way we do things at the organisation. What are the accepted norms? What is the acceptable behaviour? So, if you have a new employee who comes in, they generally look around and feel around. And eventually they kind of settle in. [...] So when you come in it could be that, so both from the positive and the negative from a cultural point of view, it is the way we do things and it's the way what we have defined what our reason for being is going to be."*

Eleven sub-categories emerged as to whether culture was enabling or hindering employee-driven innovation, and participants generally indicated that culture and individual subcultures such as of departments or teams have the potential to both stimulate and counteract the influence of ESM on employee-driven innovation; in the following we will focus on the three major sub-categories. First, participants felt that the current hierarchical command and control culture would need to change to a culture of collaboration and transparency to better suit the collaborative work practices implied by ESM. Second, participants felt that the support of executives and middle managers positively influences a culture of collaboration and assists employee-driven innovation using ESM. Third, participants felt that cultural norms have a stronger influence on employee-driven innovation than the availability of collaboration enabling ESM. This perspective is for example, evidenced by one participant's statement: *"I think [ESM] can help innovation in a culture of innovation. So I think in a culture of fear and*

caution, I don't think [ESM] really makes any difference. You know yes it enables, you know some cool stuff whether it's a [video chat], or a chat or, it enables it. But if you're scared of your boss you're still not going to do those things. So I guess I'm saying it's more cultural than technology."

4.2 Mindset

Mindset reflects the state of mind of individuals and is commonly known as a habitual way of thinking (Moore, 2004); it is thought to influence if and how employees use ESM and, similar to culture, participants indicated its potential to stimulate and counteract the influence of ESM on employee-driven innovation. For example, one participant indicated: *"The only hindrance is the mindset of the people using it[ESM]. Because even if there's a fault or a deficiency within [ESM] it should be down to us to sort of go back to [ESM] and say okay, well how can we make [ESM] better"*. Thus, mindset influences whether employees use ESM for collaboration in general and innovation in particular.

4.3 Collaboration

Collaboration tools like ESM encourage employees to collaborate with each other on problems, directly and indirectly in both central and distributed ways (Cook, 2008). Participants indicated that collaboration using the ESM is important for employee-driven innovation. For example, one participant explained: *"The more you can get people using and talking to each other in any format is going, is obviously going to help with innovation. So the more people talk, use, brainstorm, collaborate, share, it's going to help in innovative thinking. So it could be used, you've just got to know how to do it"*. Thus, employees' decision to collaborate via ESM is an important precondition for sharing ideas on ESM.

4.4 Sharing Ideas

Sharing represents the extent to which ESM users exchange, distribute, and receive content (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). In our context, sharing ideas refers to a situation of an employee advising at least one other employee about or receiving a new idea from at least one other employee via ESM. One participant compared the situation of sharing ideas via ESM to previous approaches: *"Once [ESM] had rolled out and we got the ball rolling with all the guys within [Retailer] in Tasmania they actually engaged it themselves across the whole area group. So we have 30 stores and in-between some stores you can have 400 kilometres to get in-between stores. But these stores now can instantly share and engage with each other what they were doing, and any ideas that they have. So it really sort of took away from the traditions of going in to the store and having the conversations in the store, and things like that, basically become really self-proficient about doing different things, just challenging the status quo of what they've always done. Because now they've got all these tools to use, and they can see what everyone else is doing and they can share their ideas."* Thus, by providing employees a medium to share new ideas ESM enables them to initiate innovation.

4.5 Competition

Competition is known as striving to gain or win something by defeating or establishing superiority over others (Moore, 2004). Competition in this research context is for example, evoked when employees see visual displays of other stores on the ESM platform and then want to improve their own store based on what they have seen. One store manager described how he and his staff did not want to be 'out done' by other store managers after viewing displays on ESM: *"When we see other people, when we see other stores, the good things that we're doing, nobody wants to be outdone. Even the staff don't want to be outdone and so they come back to you and say why don't you do this, we can't allow them to do that, we need to do this."* Consequently, competition is influenced by and influences employees' decision to engage in employee-driven innovation by sharing ideas on the ESM.

4.6 Learning fast

Learning is known as the acquisition of knowledge and skills through study, experience or being taught (Moore, 2004). Learning fast in our context reflects an employees' ability to quickly understand new knowledge or new information by using the ESM and applying this knowledge to their work practices. For example, one participant explained how ESM can be used to discover and build on new information to solve problems and answer questions quickly: *"Innovation is more about building on something, you need some information, you have some idea, and you want to find out what you can build on that. Has anyone done this or not? So the way that [ESM] is, particularly, first getting the information faster and analysing it. Okay, what do you need, start searching. You get information, and then you start searching for some other question. You start getting the answers very fast."* Thus, ideas that are shared on the ESM provide other employees opportunities to quickly learn and progress ideas.

5 Discussion

Being mindful that we are amidst data collection and further analysis, we believe our emergent findings provide early insights that warrant discussion. To that end, we engaged with the literature to contrast our emergent empirical pattern with prior results and extant theory. Two broad findings emerged from this process:

First, our findings indicate that organizational culture plays a major role in both fostering and inhibiting ESM use for innovation. For example, employees pointed out that culture influences their way of using the ESM and that cultural change needs to be driven by the top management. This is in accordance with research findings in other contexts such as new product development, where for example, active encouragement and failure acceptance of the top management, has been shown to positively influence innovativeness (de Brentani and Kleinschmidt, 2004). It is furthermore assumed that culture not only influences how employees use ISs such as ESM, but that culture itself is also influenced by the values embedded in ISs (Leidner and Kayworth, 2006). This assumption is supported by our findings, as participants indicated that the ESM seemed to be built on different cultural values than the ones of the organization, which encouraged a change in values and practices. Pointing in a similar direction, employees also described an open mindset as required for overcoming a conflict of values between the ones imposed by the ESM and the ones of the organization.

Second, from a systems use point of view our findings indicate that ESM fosters collaboration and creation of innovation. Innovation is increasingly conducted across functional and geographical boundaries, which requires ISs that support virtual collaboration of distributed employees (Nambisan, 2003). By providing a platform for communication and idea exchange (Ko et al., 2011) ISs such as ESM can enable distributed employees to engage in collaborative knowledge creation (Vaccaro et al., 2009), overall fostering development of organizational innovation competencies (Pavlou and El Sawy, 2006). Exposure to new knowledge and ideas in turn, in particular from diverse sources (Baer, 2010), is considered to be beneficial for individual (Perry-Smith, 2006) and organizational innovativeness (Albrecht and Hall, 1991). Findings of our study point in this direction, indicating that ESM foster distribution of ideas across boundaries, thereby enhancing individual employees' innovativeness.

In addition, our findings show that ESM can foster competition between employees and functions, referring to a *"simultaneously cooperative and competitive behaviour"* (Tsai, 2002 p. 180), which encourages sharing and implementation of innovations. Exposure to and development of new ideas does not automatically imply their implementation (Albrecht and Hall, 1991; Baer, 2012), but expected benefits such as performance gains are an important driver of idea implementation (Baer, 2012). In our case, employees mentioned that ideas that were showcased on the ESM platform were often adopted or triggered their own ideation, to avoid being outdone. Finally, our findings indicate that employees' ESM use can accelerate their learning curve. From a knowledge management perspective social interactions are required for transfer of tacit and explicit knowledge (Nonaka and von Krogh,

2009). The ESM platform can both facilitate interactions that aim at creating new knowledge (von Krogh, 2012) and enable sharing and accumulation of explicit knowledge (Faraj et al., 2011), thereby providing employees possibilities to build on each other's knowledge to accelerate their learning and innovativeness. In sum, our preliminary findings indicate that ESM can play a major role in enabling and fostering employee-driven innovation and shed light on ESM implementations from a perspective that has received little attention in literature so far.

6 Conclusions

6.1 Contributions

The nature of our contributions, to date and expected, are empirical rather than theoretical. We provide an empirical account of ESM use for innovation purposes and develop an empirically grounded conceptualization of the key conditions under which ESM can foster employee-driven innovation. In our on-going development of this account we attempt to provide an analysis of the available data that is at the same time authentic, plausible, rigorous, interesting and timely (Avison & Malaurent, 2014). Through this work, we provide emergent empirical evidence that ESM use for innovation purposes is a multi-level phenomenon that is influenced on the organizational level by cultural norms that, in turn, influence individual mindsets towards or against innovation-at-work. Within the context set by these factors, group collaborations that can be enabled through ESM can lead to the increased sharing of ideas and an increase in organizational learning, both factors that lead to improved innovativeness.

6.2 Limitations

We are cognizant that the reporting of our on-going research is preliminary. Specifically, to date we explored primarily qualitative self-report data as experienced by interviewees, in turn bounding our interpretation of this data in terms of validity and generalizability. However, within the context of the case study we also have access to further content and structural data about activities and use related to the ESM platform, which will allow for triangulation and different analysis techniques. Our exploration is limited to a single case organization. The resulting limits to ecological validity are in our view offset by the opportunity to conduct both a rich and deep investigation into the phenomena we are interested in, which would not have been possible if we examined multiple organizations. We are limited in our reporting by the space limits requested for this submission. In turn, the description of both data analysis and findings is reductionist and abstract in nature and fails to convey appropriately the rigor and depth of the findings. We will be able to provide further details in the conference presentation.

6.3 Future research

Our future strategy in this on-going case study focuses on two main sources of data. First, we will examine innovation-centric content on the organization's ESM platform. We plan to collect data from several communities and are considering different semantic and content analysis techniques to examine this data. For example, a currently active conversation on one of these communities is the potential idea of a 3D body scanning solution that enables the right fit of clothes purchased online. Second, we aim to complement the qualitative data with a cross-sectional survey of ESM use and perceptions thereof as reported by adopters and non-adopters of the platform. We will commence measurement instrument development once the conceptual model emergent from the qualitative analysis is completed. The potential of culture to foster and hinder IT enabled innovation has been highlighted in other research (Alavi & Leidner, 2001; Leidner & Kayworth, 2006) and is also present in our preliminary findings. These cultural influences will be further incorporated in our future data collection and analysis.

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