Do retailers leverage consumer social media content for innovation? An exploratory study

*Research-in-progress*

**Joanne Patroni**
Science & Engineering Faculty, Information Systems School
Queensland University of Technology
Brisbane, Australia
Email: joanne.patroni@hdr.qut.edu.au

**Frederik von Briel**
QUT Business School, School of Management
Queensland University of Technology
Brisbane, Australia
Email: frederik.vonbriel@qut.edu.au

**Jan Recker**
QUT Business School, School of Management
Queensland University of Technology
Brisbane, Australia
Email: j.recker@qut.edu.au

**Abstract**

The rise of social media has opened new pathways for organizations to innovate, in particular because innovation impetus may now be harvested from outside the organization. In our research-in-progress we examine the case of a global retail organization that has recently adopted social media strategies with the view to foster consumer-driven innovation. We focus on why social media content generated by consumers under some circumstances facilitates consumer-driven innovation and why under some conditions it doesn’t. We report on the research methods, data collection, data analysis strategies and emergent findings, and conclude with a brief overview of our future research.

**Keywords:** Social media, social network systems, consumer-driven innovation, case study, retail
1 Introduction

Innovation is key for organizations to stay competitive in the marketplace. One way of achieving innovation is by opening up the organizations to ideas from the outside – a phenomenon called open innovation (Chesbrough 2003). Empowering consumers to innovate for organizations is an open innovation practice that is being aided by social media which affords consumers with the ability to verbalise their opinions globally (Olsen and Christensen 2015; Sorescu et al. 2011). Consumer comments on social media may even become “viral”, which offers both opportunities and risks for organizations. To adapt to and leverage this changing environment, organizations in general and retailers in particular are increasingly investing in social media listening technologies to be able to make use of consumers’ comments (Brandel 2010; Marc Egger 2015; Weiguo and Gordon 2014). Social media listening technologies harvest feedback, opinions and other user-generated content from social media, which can then potentially be leveraged for innovation (Jelonek and Wysłocka 2015). However, while organizations are increasingly investing in social media listening technologies, little is known about how consumers’ comments on social media traverse into organizational innovation (Füller et al. 2014; Jalonen 2015).

In our research-in-progress paper we explore this phenomenon through an in-depth case study of a global retail organization. We provide an overview of our on-going data collection and analysis as well as the emergent findings. Our longer-term study endeavour to investigate how social media can influence consumer-driven innovation. In doing so, our ambition is to provide empirical knowledge to answer the following research question:

*How does social media use by retail consumers lead to consumer-driven innovation for retailers?*

2 Research Background

Social media, referring to internet-based applications such as blogs or social networking sites that allow their users to create and exchange content (Kaplan and Haenlein 2010), have revolutionised how people live their lives today. Because of social media, social practices have migrated from the physical to the virtual world, with many people today turning to social media to gratify their needs (Matook et al. 2015). However, social media has not only transformed the way people connect and communicate with each other, it has also enabled people to publicly share their opinions and discuss various topics, products, and services with a large number of potentially unknown people. This latter transformation in turn has had a disruptive effect on the retail industry (Constantinides et al. 2009; Retail 2015; Stephens 2013).

Today, people often leverage social media to identify the best products and services and to complain about products and services that are below expectations (Constantinides et al. 2009; Niemeier et al. 2013; Retail 2015; Sorescu et al. 2011; Stephens 2013). In response, retailers are increasingly attempting to engage with consumers on social media to learn from them and ultimately to be able to innovate and improve their market position (Cameron 2014; IBISWorld 2015; Mason 2015; Kiemer 2013; Rowsell 2015). However, it remains largely unclear how organizations should engage with and can benefit from the wealth and noise of user-generated social media content. For example, considering that Facebook alone has 1.09 billion daily active users, organizational engagement with user-generated social media content is far from trivial (Facebook 2016) and requires dedicated strategies and technologies.

The academic literature to date is largely silent about this challenge. Between 2005 and 2015 we only identified 42 related papers from a search of outlets on Scopus and other databases, with the majority of papers focusing on customer co-creation (Jelonek and Wysłocka 2015; Kurenbach and Norgela 2015; Olsen and Christensen 2015). In contrast, fewer papers focused on user generated content in general and how it can influence organizational innovation (Nikolaus 2013; Rotnes and Dybvik Staallesen 2010; Sindhay 2011). The problem with this literature is that co-creation assumes intent, viz., customer-generated content intended to be used for innovation. However, the majority of user-generated content is not created with such an intent. It is important to understand how organizations can leverage any user generated content for innovation, even if this content is not suitable or planned for co-creation. For example, the retail industry is strongly affected by consumers’ experiences about products and services, and today’s consumers frequently share and exchange both their negative and positive experiences on social media, thereby providing retailers opportunities to listen to and leverage them for innovation purposes (Constantinides et al. 2009; Retail 2015; Stephens 2013). With the absence of strong theory, we decided to explore this phenomenon empirically.
3 Theoretical Framework

To guide our examination of retail consumer social media use and its influence on organizational innovation, we created a research framework based on our interpretation of the extant literature and our own preliminary analysis of the data as we collected it (see Figure 1). The core assumption of our framework is that organizational innovation can originate from listening to consumer sentiment on social media. Whilst this framework and its linkages have initially been derived inductively from our observations, and in some instances abductively based on our engagement with the literature, we expect this framework to evolve and strengthen as new empirical findings surface during the research program. Thus, our framework will be subjected to pragmatic empirical theorizing (Shepherd and Suddaby 2016) whereby empirical data and facts will trigger theorizing as our data collection and analysis matures.

![Figure 1 A-priori research model](image)

We start by differentiating social media user behaviour based on the Uses and Gratification theory (Katz et al. 1973). This theory suggests that social media provides three main gratifications: social (building new social relations), hedonic (using social media for fun, passing time, relaxing and entertainment) and cognitive (creating, sharing and assessing knowledge content) (Ali-Hassan et al. 2015; Chiu and Huang 2014; Ko et al. 2005). However, our main focus is not on user behaviour in general but on what we call user innovation-affording behaviour: people using social media to deal with problems, opportunities and unusual situations, which bears the potential to generate, promote and implement new ideas (Ali-Hassan et al. 2015; Janssen 2000; Kanter 1966; Sparrowe et al. 2001). For this research, we refer to content that is shared by consumers on social media and relates to retail as user generated content. Our framework suggests that user generated content can occur from social, hedonic or cognitive gratifications and this then results in both sharing ideas (e.g., innovation suggestions) and sharing problems (e.g., complaints about products, processes or services) on social media.

Further, we expect that national culture will moderate the relationship between social media user behaviour and user generated content. National culture represents the norms, values and beliefs that exist within a population of a sovereign nation (Hofstede et al. 2010; Schein 2010). An individual's national culture can influence his or her use of and decision to share sentiment on social media (Leidner and Kayworth 2006). In particular, we focus on the national culture dimensions of individualism versus collectivism and uncertainty avoidance (Hoehle et al. 2015; Hofstede et al. 2010; Srite and Karahanna 2006). For a person with an individualist national culture, individual gain, independence and autonomy are important, whereas for a person with a collectivist national culture the collective needs of an overall society or group are more important. Hence, somebody with an individualist national culture may be more willing to use social media to share their own opinions and ideas than somebody with a collective national culture, as the latter places the opinions of the group before their own individual opinion or individual gain. Uncertainty avoidance refers to when people value rules and regulations and prefer to avoid situations that are uncertain or not familiar to them. A person with weak uncertainty avoidance feels more comfortable with less structured rules and regulations and should therefore be more confident in using social media to share their opinions, ideas or problems (Hoehle et al. 2015; Hofstede et al. 2010; Lewis and George 2008).
The right hand side of our framework postulates how user generated content may lead to organizational innovation. To explore this, we divide organizational innovation into ideation capability and ideation implementation capability (Dong and Wu 2015). Ideation capability refers to an organization’s ability to derive innovative ideas from collecting and analysing user generated content on social media (Dong and Wu 2015; Nambisan 2013) and ideation implementation capability refers to an organization’s ability to implement innovative ideas into the marketplace (Dong and Wu 2015). We expect that there is a positive relationship between user generated content and the retail organization’s innovativeness (i.e., organization innovation) but without a clear theoretical expectation of how this relationship manifests.

We expect culture to moderate the relationship of user generated content and organisational innovation; however, this time we expect organizational culture to be a moderator. Organizational culture describes the norms, values and beliefs that are shared amongst members of an organization (Cabrera et al. 2001). Previous research has highlighted the moderating effect that organizational culture can have on innovation as a result of technology use (Hoehle et al. 2015; Hofstede et al. 2010; Leidner and Kayworth 2006; Patróni et al. 2015). In particular, we expect two dimensions to be of importance, viz., the employee information sharing and employee customer driven value dimensions. Information sharing refers to the mindset of making information available to others inside and outside the organization (Popović et al. 2014). For innovation to occur, it is paramount that information is shared across organizational boundaries (Gray et al. 2011; Jerome 2013). Customer driven refers to the mindset of focusing on and addressing the pragmatic needs of customers (Hofstede et al. 2010; Itim 2012). A customer driven mindset facilitates a customer centric, market driven and pragmatic approach towards innovation (Cabrera et al. 2001; Hofstede et al. 2010; Itim 2012).

4 Research Method

We adopted an exploratory qualitative case study (Venkatesh et al. 2013; Yin 2013) to examine the use of social media for innovation at a top 20 global retailer (Deloitte 2015). Our main data collection method is semi-structured interviews with both end users (i.e., consumers) and retail staff members (i.e., employees who are responsible for social media and/or organizational innovation). The interview questions are based on our research framework, but the semi-structured nature of the interviews allows us to adapt the interviews and to shape the emergent research framework over the course of data collection.

So far, we have interviewed 13 end users and one retail staff member. Interviews conducted have an average duration of 25 minutes and questions pertain to social media user behaviour in general and innovation-affording in particular, manufacturer or retail innovation ideation capability and espoused national cultural values. Similarly, semi-structured interviews with the retail practitioner also lasted about 25 minutes, but pertained to filtering consumer user-generated social media content, retail innovation capability and espoused organizational cultural values. Consumer interview participants have been chosen at random at local shopping centres in Australia. We also recruited participants via social media (i.e., Facebook, LinkedIn and Twitter) in order to gain access to end users who are particularly active on social media. Our goal is to complete between 30-50 interviews over the course of our research. We also have access to a team of 10 retail staff members who manage social media for the case organization.

Most interviewees were Australian, six were female and eight were male. Participants were aged between 18 and 55 years, with ten of fourteen participants being at least 36 years of age. Participants’ social media use varied, with two participants not using social media at all, five participants using it once a day, three up to four hours a day and four greater than four hours use a day. We analysed collected interview data using the qualitative application NVIVO (Bazeley and Jackson 2013) and broadly followed a three-stage open, axial and selective coding method (Corbin and Strauss 2015). This analysis is ongoing.

5 Ongoing Data Analysis and Emergent Findings

In the following we present our preliminary findings regarding user generated content on social media and how the retail organization leverages this content for innovation purposes.

Participants use social media for a range of social, hedonic and cognitive gratifications, spending most of their time on Facebook (6) and LinkedIn (7). All consumer participants (13) prefer passive reading of comments and posts on social media as opposed to actively sharing ideas or solving problems with
other empirical and theoretical evidence. Participants also have an independent opinion on what constitutes innovation, even though innovation was considered important.

The retail organization in turn is predominately listening to consumer comments on Facebook (80%), which mostly pertain to five focus areas: product feedback (50%), service feedback (30%), community initiatives, marketing initiatives and digital shopping services (remaining 20%). The volume of analysed content is on average 300-400 comments per day. However, in the case of media exposure, content relevant to the retailer can spike up to 5000 comments per day. Approximately 5-10% of analysed content has resulted in changes in the way the retailer conducts business according to the interviewee. Of the 5-10% of analysed content that has resulted in changes, the majority is related to customer problems such as product and service complaints (90%) and only a minority can be attributed to innovative ideas that are directly posted by consumers themselves (10%). Overall, we were informed about six key changes that resulted through social media analysis and have changed how the retailer conducts its business. These six changes include improvements to the retailer’s product range, changes to its digital services (i.e. online shopping web services), establishment of a Free-Food for children initiative, preference for Free-Range eggs, ethical sourcing of produce, and real-time adaptation of marketing campaigns based on social media feedback. However, so far we have not gleaned insight into how these changes were implemented (i.e., how ideation capability became implementation capability). Likewise, analysis of the organizational cultural moderating dimensions of information sharing and customer driven dimensions has just commenced and we hope to share some insights at the conference.

6 Discussion, Interim Conclusions and Outlook

Being mindful that we are early within the data collection and analysis phase of the research, we believe our emergent findings provide some insights that warrant discussion.

Firstly, participants indicated that their social media use was mostly to view or share interesting articles or videos, but less than half of the participants could provide an example of when they had used social media to share new ideas or solve problems with others. This is in accordance with the retailer’s own social media analysis, which indicates that only a few consumer comments are directly targeted towards creating new ideas or solving problems for the retailer. In turn, identifying innovation-affording social media content appears to be largely a search and examination challenge for the retailer. However, our analysis also revealed that, despite the lack of consumer generated ideas, the retailer is actively attempting to leverage user generated content for innovation. Interestingly, these innovations appear triggered by consumer complaints rather than ideas. The pathway from problem to innovation, thus, is one that will require further data collection and analysis.

Secondly, preliminary analysis of the espoused cultural values shows that hitherto our participants have been individually inclined but have stronger uncertainty avoidance values, even though previous
research suggests that people need to have weaker uncertainty avoidance values in order to share new ideas (Hofstede et al. 2010; Itim ; Leidner and Kayworth 2006). Hence, according to our framework the majority of our participants were more likely to share product and service concerns on social media in preference to sharing new ideas or problem solving. In response, a next step will be to interview participants with different cultural espoused values, in particular individuals with weaker uncertainty avoidance values, in order to see whether these participants are more or less likely to generate innovation related content on social media.

Moving forward, we will continue collecting and analysing interview data to refine our emergent model of consumer-driven innovation. We are aware that the reporting of our on-going research is preliminary. To date we have commenced the exploration of primarily qualitative self-reported data from interview participants being both consumers and retail social media practitioners. By the time of the conference the empirical and theoretical contribution will be more advanced. Our future strategy focuses on two main sources of data. First we will investigate consumer innovation-centric content on social media that we plan to collect from Facebook, LinkedIn and Twitter and then cross match this data to the case organization innovation practices. Secondly we plan to compliment the qualitative data with cross-sectional surveys of consumer and retailer social media use for innovation.

7 References


