

INNOVATION LEAD BY INFORMATION AND INTERACTION THROUGH SOCIAL MEDIA

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Abstract

Innovation has been the focus of companies in all arenas due to increased competition resulting through globalization. Innovation process is based on successful collection and exploration of new ideas through interaction among different sources. Over the past decade, social media has grown tremendously in variety and has been adopted by millions of people across the world. Today companies have recognized the possibility of integrating social media into innovation for better prospects. The trend of using social media as part of the innovation process is gaining momentum every day, and there is no turning back as social media has become one of the most effective sources to communicate, collaborate and build relationships on a personal level. Innovation and technological development are now seen as systemic activities involving throughout the economy. Internet advancement and web 2.0 technologies have been the key driver for internal and external stakeholder engagement and exchange of information among these parties. The aim of this study is to analyze the impact of information through social networks on innovative process in organizations.

Keywords: online social networks, technology-based innovation, social media

I. INTRODUCTION

Over the past several years, it has been observed companies of all sizes and all stages are tapping the potential of social media to make innovate their process, products and services. It is the high time to identify and analyses the interrelation between innovation and social media. The innovation and creativity are based on successful collection and exploration of new ideas from different sources technical and non-technical. Today marketers view social media as digital tools and services that facilitate involvement and interactions between different stakeholders, whether they are users or business partners, individuals or crowds, known or unknown.

Social media is one the most exciting tools to communicate, collaborate and build relationships on a personal level. Online social networks made up of various parties with different degrees of innovativeness may allow management to collect new ideas and measure their involvement. Innovation, learning and technological development are now seen as universal activities involving many and diverse actors throughout the economy.

Innovation and Social Media

Open Innovation is the mindset to enable their organization to work with external input to the innovation process just as naturally as it does with internal input. It claims about is about bridging internal and external resources and acting on those opportunities to bring better innovation to market faster where as in closed innovation a company maintains complete control over all aspects of the innovation process and discoveries are kept highly secret. In open innovation, social media open up a whole new world of possibilities in terms of who you can collaborate with to solve problems and bring new products and services to market. With social media, your ability to extend your network of contacts who may be able to assist in your innovation process widens dramatically and the increased use of social media for open innovation will increase your ability to identify opportunities for connecting with larger entities to help them to build up their innovative strategies. Interaction and involvement are key elements for both innovation and social media. Usage of

social media enables you to access business intelligence and communicate relevant messages to your innovation ecosystem that will help you establish thought leadership and build your innovation brand. Data on how many companies are using social media for their innovation efforts is hard to come gives an opportunity to research on this topic.

Companies need to build strong capabilities at this intersection if they want to out-innovate their competitors. Innovators need to understand this interlink now and the purpose of this study is to provide insights on how you can leverage the tremendous potential of social media as a key element in your innovation process. Innovation is of a multifaceted nature, being related to the predisposition to promote and/or accept change, whether it be radical or gradual (Schumpeter, 1985). Thus, for consumers to demand innovative products or ideas, they must be open to adopting a new type of habit as a result of acquisition of the innovation.

II. OBJECTIVES OF THE STUDY

The general objective of the study was to is to analyze the application of information through social media in the innovation process .The specific objectives of the study were as follows:

- i. To examine the impact of information through social network on business innovations.
- ii. To identify the benefits obtained from using the social media.

III. LITERATURE REVIEW

'An organization is not a perpetual motion machine; but an open system that survives through some form of exchange with its environment' (Nelson, Winter, [1982]).An innovative firm is seen as functioning within a complex network of co-operating and competing firms and other institutions, whose activities and interactions initiate new technologies (Edquist, [1997a]; Freeman, [1995]; Nelson, [1993]).Therefore, in order to take a closer look at the flows of knowledge between various participants of the system, it is necessary to restrict the analysis to various subsystems of a system of innovation (Edquist, [1997b]). These new technologies have introduced substantial changes to the way communication takes place between organizations, individuals, and the community at large. Kaplan and Haenlein describe Social Media as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of User Generated Content” (2010: 61). Web 2.0 applications foster cooperative and collaborative behavior between actors and can potentially influence organizational structure and functioning (O'Reilly, 2005). Web 2.0 “implies the concept of a ‘participation-internet’, in which users are actively involved in the creation of content” (Matschke et al., 2012: 161). In the perspective of Lévy (1999), the role of information technology and information-based communication techniques is that of favoring construction of intelligent collective spaces where the social and cognitive potentialities of each one may be developed and expanded in a mutual way. Wellman (2005) complements that virtual relationships are filling empty spaces in the lives of persons, and not those spaces already filled by face-to-face activities. Virtual relationships do not completely substitute face-to face interactions, acting in a complementary manner (Dimaggio et. al., 2001). These interactions in virtual networks, just as in face-to-face relationships, assist in creating social asset. Social capital favors internal and external cooperation of diverse social groups. This is not a property of a given individual, to the extent that it arises and depends on the interaction of at least two people, i.e., it consists of an asset of the network or group, which brings benefits to the collective body or creates restrictions for those who do not participate in it (Marteletto; Silva, 2004). Organizations that wish to increase their market share have been undergone in various changes. Many of these changes are directly related to the ability companies manage and use information. Indeed, it is necessary to do more than simply manage information. Considering the aspects related to knowledge, it is important that companies develop abilities to manage data, information and knowledge through social networks. This major technological change enabled the emergence and success of Social Media by allowing users to interact in innovative ways. Social Media includes not only mainstream social networking websites such as Facebook or Twitter, but also applications that permit fast and/or short multi-directional interactions (e.g. RSS) and exchanges of information (e.g. blogs and wikis). These new tools are based on participation,

creativity and high levels of interaction between users, and are characterized by low barriers of entry and user-friendly interfaces based on web-based applications. From a company perspective, these innovative tools offer tremendous potential in terms of access to a vast source of untapped knowledge both inside and outside the organization. Social Media indeed appears as an effective way of promoting interactions, connecting heterogeneous actors who operate in different social spheres and bringing them together to foster innovation (Ooms et al., 2015). According to Castells (2003), the advent of dissemination of Internet promoted a new social configuration which he calls network society, with a new economy influenced by information and communication technologies. Shorter product life cycles impose new complex challenges for companies. The Internet and the World Wide Web have been used as tools for collaboration, especially the virtual social networks. Granovetter (1973) shed light on the strength of the weakness provided by social structures and their influence on innovation and the concept is being adapted to cyberspace. The online environment, where the social networks proliferate, has become a privileged space for exchange of information and knowledge. That means attracting and maintaining different profiles of social actors online. Innovation and marketing management researchers are very interested in this scenario favorable to the spread of information from all types of sources. According to Von Huelsen (2008), social network allow the consumer to assume different functions, from announcer or discloser even up to criticizer of a company. Participation in these virtual communities leads people to present their ideas and perceptions regarding products and services, normally in the form of comments and opinions. It is this information, together with the personal characteristics and network user characteristics that may be established as strategic resources in the process of launching new products. For that to occur, the knowledge and innovation management sectors of companies should be able to incorporate this type of information. As the volume of comments and opinions generated daily on these networks is high, it becomes necessary to prioritize the acquisition of information focusing innovation. The behavior motivated toward innovation is the focus of several studies, generating scales and other instruments for its prediction, as related in (Venkatraman and Price, 1990; Goldsmith and Hijacker, 1991; Baumgartner and Steenkamp, 1996). Considering the growing importance of the virtual environment, the present study investigated the existence of interfaces between consumer participation in virtual social networks and his/her propensity to adopt behavior favorable towards companies marketing strategies.

IV. PROCESS OF INNOVATION

- 1.) Identifying the need of innovation by analyzing your strengths and weaknesses.
- 2.) Develop a better understanding of social media tools and how they can be used.
- 3.) Connect needs and technology by identifying key target people for the community
- 4.) Develop a process for creating relevant content for the strategy
- 5.) Effecting change in the organization.

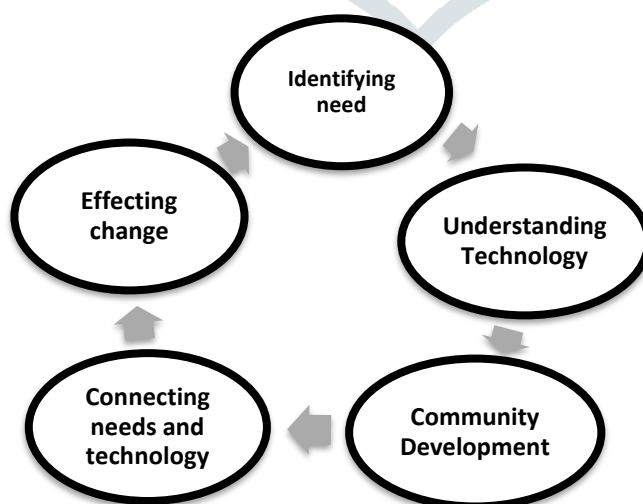


Fig 4.1. *Planned Use of Social Media for Innovation*

4.1 Identifying the need of innovation by analyzing your strengths and weaknesses.

Innovation is often inspired by unexpected voices that bring a fresh perspective to solving a particular need. Social media encourages an intimate dialogue with people inside and outside the organization, of customers or colleagues. In addition to targeting customers, businesses should seek input from people in other industries and with different perspectives who may approach the challenge in a completely different way.

4.2 Develop a better understanding about usage of social media tools

Organizations need to develop a better understanding for the usage of effective media tools and technologies for innovation. Network interaction among the firms and the workgroups have been argued to stimulate trust, knowledge flow, flow of ideas, and innovative culture. Information through networks within the organization are conducive to innovation because they give firms access to diverse knowledge and help them to, jointly, combine complementary resources. These information can provide business owners with better insights about the users and consumers. Organizations are required to hire skilled staff, or contracting out to a private consultancy which specialize in social data analytics. The costs of storage are constantly decreasing, meaning that this infrastructure is not out of reach of small and medium sized organizations.

4.3 Connect needs and technology by identifying key target people for the community

Decide where to establish a social media presence. A company blog is often a good starting point. Twitter, Facebook and LinkedIn are chosen by many small businesses. Once you decide the key places where you plan to establish and maintain a presence, observe those communities. Identify those who use that particular service effectively and watch what they do. Pick up ideas. Don't be afraid to try new things on your own.

Social media, like any function, needs to be "owned." Some department or some employee should be responsible. If you leave the responsibilities vague, chances are no one will feel responsible and you will be disappointed. Social media lends itself to team approaches, i.e., two or three staff members working in shifts or dividing up the duties according to the type of social media.

4.4 Develop a process for creating relevant content for the strategy

By creating a social media schedule, sticking to it and monitoring the results, you can be on your way to building a successful social media plan that can help you achieve your business strategies and goals

Gather the information and inputs you have learned through social media channels internally in team meetings. Include relevant points in internal reports. Managers need to incorporate ideas and suggestions into the product development process for better results and profits.

4.5. Effecting change in the organization

Social revolution is changing the way the organization works. The future of social business is based on key pillars of:

- Technological processes
- Competitive Dynamics
- Customer Engagement
- Empowered Employees
- Collaborative workforce

Disruptive technologies are shaping the future business. The idea of linking men machine with social network will develop more service professionals and innovative products. The information through network transform the way the organization connects, communicates and develops.

Value Proposition Through Social Media

Crowdsourcing is the process of seeking the collective intelligence of the public for a particular purpose. Crowdsourcing can be used to tap the latent talent of the crowd. Companies have begun using social media tools to further build their networks and engage with their innovation stakeholders. It gives a platform for crowdsourcing. Here are few relevant examples:

- Carlos Haertel (@CarlosHaertel) tweets about GE's innovation efforts and other things related to innovation. GE build an innovation leadership position as the innovation community appreciates efforts to distribute knowledge and insights.
- GE has an app for their Ecomagination challenge, which gives them an additional touch point that interacts nicely with their website for the challenge. They also have a YouTube channel for Ecomagination, and a Facebook page that has garnered over 80,000 "likes."
- Whirlpool recently launched such a group on LinkedIn. However, it should be noted that it is difficult to achieve success with such groups on LinkedIn as the structure of the groups allows too much irrelevant information.
- Through their Intuit Collaboratory website, Intuit – among other things – announces events in which they interact physically with startups.
- Psion has experimented with Twitter Chats in which they shared insights on their open innovation efforts. Psion gets better access to and interaction with their stakeholders through their IngenuityWorking.com community. SAP gets similar benefits with their SAP Community Network.
- A key benefit of crowdsourcing initiatives like Dell Idea Storm or prize competitions like Cisco's I-Prize are idea generation and feedback loops on ideas and projects.

V. CONCLUSION

In this paper, we have provided a conceptual, based model for the usage information through social media in innovation process. As we have seen, social media may increase the effectiveness and the efficiency of co-creation by lowering the cost of interaction among participants and by allowing a larger number of participants to contribute to a particular co-creation initiative, hence enhancing the heterogeneity of knowledge stocks in the participant community. Finally, research is needed on the long-term effects of customer co-creation on competition. Our entry into a golden age of digital innovation provides an unprecedented opportunity for the Information system field. In the past, major waves of digital innovation—those associated with technologies like mainframe-based management information systems, PCs, artificial intelligence for business, ERP, and the Internet—seemed to arrive at a rate of only one or two per decade. As each wave flowed through the popular imagination, we saw major bursts of student interest in IS and increased enrollments in Information system courses and programs, followed by periods of sometimes painful retrenchment as the underlying innovations either took their place as broadly institutionalized technologies or got sent back to the labs to possibly rise another day. Yet now we can see perhaps a half dozen or more innovation waves approaching and being implemented everyday: mobile and cloud computing; digital and social marketing; "smart" business enabled by smart devices and technologies, analytics, and big data; augmented reality interfaces; business models, technology platforms, and other mechanisms for the democratization of innovation; and the "maker" movement based on 3D printing and other technologies, which may one day disrupt the manufacturing industry, the world supply chain and world trade. Someone needs to prepare the managers and business leaders of tomorrow to thrive in and contribute to this golden age of digital innovation, and it would be a shame if we in Information system did not stand up, seize this opportunity, and lead the way forward. Now—while the attention of the world is especially fixed on technology and innovation—is the time to rethink what it is that students most need to know about IS in a business context, and we believe that a redesign of the IS core class that all business students take is clearly the place to start. In this article, we have offered a vision and roadmap for such a redesign that puts digital innovation front and center as a fundamental and powerful concept. If we as a field can execute on this vision, the upside is very high.

The strategies for use of the web and its tools for advertisement must consider both the managerial and the academic focus. For that reason, new research for understanding the web environment and online behavior in virtual social networks need to be developed.

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