Chapter 70
Users' Involvement in the Innovation Process through Web 2.0:
A Framework for Involvement Analysis in a Brazilian Automotive Company

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ABSTRACT

Organizations are inserted into a competitive environment in which innovation is an essential factor in gaining temporary competitive advantages. The search for external sources of knowledge, which can contribute to the innovation process, has become a constant among the organizations. One of the actors involved in this search is users, who often play an important role in the development of new products. This chapter develops a framework for the analysis of users' involvement in the innovation process through Web 2.0. The research method used a unique case study conducted in a Brazilian automotive company that developed a project of a concept car involving users through Web 2.0. The presented study case was analyzed according to the framework. The obtained result shows that users can contribute not only with idea generation, but also with involvement in the innovation process, depending on which steps of the New Product Development (NPD) process they take part in. Moreover, increasingly users' development, participation, and collaboration are essential factors in this process.

INTRODUCTION

External sources of knowledge and information are factors considered relevant in innovation activities and new product and service development. The open innovation (Chesbrough, 2003) has become an effective concept to provide the search of external resources. The concept suggests an approach for the innovation, through the collaboration of several actors in the value chain for the search of new knowledge and technologies. Ryzhkova (2009) argues that is a relatively new

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concept, which has attracted the attention of academics and practitioners. Generally, the paradigm of the open innovation suggests that companies search partnerships and the involvement of other actors (usually, external) that can contribute to the innovation process (Rossi, 2009). The ability to identify and involve customers during the innovation process can be considered an important factor for the development of innovative activities of a company (Lettl, 2006).

New information and communication technologies are contributing to the customers' participation in all steps of the product development process, which allows the improvement not only in costs and time, but also, projecting what the customers really want (Mattos & Laurindo, 2008). The innovation tools, based on Web technology, can simplify integration with customers and also, knowledge absorption, facilitating the interaction between company and customers (Prandelli, et al., 2006).

This research is limited to the exploration of different types of Web-based collaboration with users for the purpose of innovating. The focal point of this chapter is the exploration of Web based user innovation methods, from the companies' perspective, aiming to address organizational and management issues of collaboration with users. From the standpoint of management practice, the goal is to contribute to a better understanding of organizational and management challenges arising from the implementation of toolkits for innovation through the Web. From the standpoint of management research, the exploration of tools for user innovation, as methods of practicing open innovation, will help to improve the concept.

Additionally, it is described and analyzed a unique case study of a Brazilian automotive company, which adopted Web 2.0 for user innovation. This case represents a paradigm shift in the automotive sector, because no auto manufacturer has "opened" the development process of a car so far (Wentz, 2010). It is a common sense, that the auto companies use the Internet to organize their hundreds of suppliers, but not to design their cars. Gladwell (2010) suggests that the articulation of a coherent philosophy of auto design cannot be conducted by an open network system without a system of organizational leadership and control. The study will help to understand how to involve users in the process of innovation with Web 2.0 toolkits, as well as, the impact that the adoption of the method of user innovation has had on the company.

The literature has also shown the possibility of a successful involvement of users through the Web 2.0 in the efforts of companies' innovation (Piller & Ihl, 2009). Fredberg *et al.* (2008) suggests that the advent of new collaborative technologies, specifically the use of Web 2.0, lead to the need for reevaluation of existing models and their analysis based on the new practices. In order to benefit from user innovation, companies must respond to the new challenges, to modify their existing practices and to develop a specific set of skills (Piller & Ihl, 2009). Thus, this context opened up a gap in the theory to an effective analysis of this type of involvement.

OPEN INNOVATION

The open innovation model was proposed for the management of innovation and is based on the necessities of the companies to open up their innovation processes and to combine internal and external development of technology for the value creation in business. The term open innovation was firstly proposed by Chesbrough (2003), and it refers to the organizations capacity of searching ideas, information and knowledge outside the organizational environment. For Chesbrough (2003), the innovation processes of companies that are intensive in technology are changing from the "closed innovation" for the "open innovation" model. The open innovation emphasizes the importance of the use of external knowledge for the best development of the innovation process.