

Chapter 1

Innovation Contests: Systematization of the Field and Future Research

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ABSTRACT

The ability to generate innovative products and services is a critical success factor for organizations. The trend of open innovation has brought about many-faceted, IT-based tools (e.g., lead user method or online tool kits), among these, the innovation contest seems particularly promising and continuously gains in importance as a corporate practice. However, a deep understanding of this online innovation practice is still lacking. Contrary to other methods used to realize open innovation, research in the field of online innovation contests displays a growing, but only rudimentarily intertwined body of publications. This paper provides the quintessential systematization of the field by integration of academic knowledge and business deployment. Juxtaposing 33 relevant journal and conference publications with empirical basis and an analysis of 57 real-world innovation contests, interesting disruptions are pointed to and six pathways for future research are described. These cover the optimal degree of elaboration, the interplay of competition and community, the importance of community applications, the trajectory toward open evaluation, and the identification of additional design elements.

INTRODUCTION

From a company perspective, the ability to generate innovative products and services is a critical success factor in a dynamic market environment (Christensen, 1997). Intensified global competi-

tion, technological advance, and the emergence of the knowledge economy force companies to focus more strongly on innovation. The ability to bring novel products and services to the market is necessary to improve an organization's competitiveness or just maintain its current position

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(Lawson & Samson, 2001). Moreover, from a macro-economic perspective, innovation is crucial for economic welfare and societal advance (von Hayek, 1968, 1971).

The loss of expert knowledge is particularly dangerous as innovative capability strongly depends on employees' ability to deploy knowledge resources (Subramaniam & Youndt, 2005). Accordingly, the innovation process has been described as a *knowledge management process* (Madhavan & Grover, 1998) and innovative companies as *knowledge creating companies* (Nonaka & Takeuchi, 1995; Subramaniam & Youndt, 2005). More specifically, a company's ability to deploy *external knowledge resources* is considered crucial (Cohen & Levinthal, 1990).

Thus, parallel to companies' increasing need to innovate, there is a change in managing innovation: the opening of traditionally closed innovation processes to the environment and the integration of external actors. This approach is often referred to as *Open Innovation* (Chesbrough, 2003; Von Hippel, 2005). Especially customers and users can be a valuable external knowledge resource (Enkel et al., 2005; Neyer et al., 2009; Thomke & Von Hippel, 2002). Open innovation goes beyond obtaining information from (potential) customers by using common methods of market research. In contrast to these traditional methods, which are usually concluded before the innovation process starts, open innovation approaches have the potential to integrate so-called *outside innovators* (Neyer et al., 2009) into every innovation process step. Typically, open innovation focuses on the early stages, like idea generation or conceptualisation, but in the later stages, like development or prototyping, integration is also possible. This kind of customer integration helps a company gather the necessary information as well as solution information (Reichwald & Piller, 2009; Von Hippel, 1978, 1994).

Among the many-faceted tools that enable open innovation (e.g., lead user method or online tool kits), the *innovation contest* seems particularly

promising and interesting. Innovation contests are increasingly used in practice and are also attracting growing academic attention (Bullinger & Moeslein, 2010; Ebner et al., 2010; Piller & Walcher, 2006). Innovation contests have proved useful in different contexts and might be an appropriate means to deal with the mentioned challenges.

Competition can be found in various aspects of life: in the evolution of creatures as well as in sports, business, arts and science (Von Hayek, 1971). It is the underlying principle of the free market economy. In "The Wealth of Nations", Adam Smith concludes that in a competitive environment, individuals' endeavour to maximize utility is conducive to societal welfare (Smith, 2009). Similarly, Von Hayek (1968) considers competition beneficial for the development of innovations and technological as well as societal progress.

Besides a competitive economic system, history has many examples in which a call for solutions in the form of a competition lead to a variety of answers, even from unexpected (external) sources. Innovation contests in their basic structure have a long-standing tradition and have influenced industries or even societies. For example, in 1869, Emperor Louis Napoleon III of France offered a prize to anyone who could make a "satisfactory substitute for butter, suitable for use by the armed forces and the lower classes." Still, neither Michel-Eugene Chevreul nor Hippolyte Mege-Mouris (historians are uneven about the inventor) were paid when they came up with margarine, since Napoleon died before. In the 19th century, innovation contests leave the realm of political organizers as they are increasingly adopted by industrialists as a powerful means of problem solving. Famous examples of this period include the "Rainhill trials" (1829) which were used by the directors of the Liverpool and Manchester Railway Company to decide whether hauling trains should be powered by stationary engines or locomotives. During the next century, realization of innovation contests slowly entered average business: An

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