Open Innovation Maturity

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ABSTRACT

Many firms are eager to tackle the challenge of moving from good to great innovators with the help of open innovation. However, a considerable number of open innovation projects fail because firms are not ready to fully engage in open innovation. They lack knowledge about how to manage its multiple facets. Drawing on a capability maturity approach, the authors propose a competence management framework to support the development of open innovation maturity – an organization’s excellence in conducting open innovation. Management categories and maturity levels are inductively identified and reflected in the context of prominent literature. The resulting Open Innovation Maturity model is based on insights from 12 parallel case studies and two open innovation pilots covering the software and the airport industry. Empiric results show that competences on the process level and on the individual level impact the success of open innovation. Hence, Open Innovation Maturity is a multidimensional concept describing the overall capacity of a firm to successfully engage in and make use of open innovation.

Keywords: Airport Industry, Capability Maturity, Competences, Open Innovation, Open Innovation Competences, Software Industry

INTRODUCTION

Managing the ability to innovate is among the most complex challenges in management; it is nonetheless a crucial task since new products and services are pre-conditions of sustained firm success (Reichwald & Piller, 2009). Recent developments in ICT have prepared the stage for new classes of socio-technical innovation systems that enable more open forms of innovative activities (Mösllein & Neyer, 2009). Opening up the innovation process aims for a better integration of need information and solution information that resides – to a large extent – with peripheral inside innovators and outside innovators (Neyer et al., 2009).

It has already been shown that open innovation (OI) has the potential to reduce flop rates and to improve customer orientation in manufacturing industries (Thomke & von Hippel, 2002). Reflecting upon the saturation of product markets in many developed economies, Chesbrough (2011) called for creating strategies and contexts that help exploiting OI for services, solutions, and systems. Even though the advantages of OI are well known and prominently researched only relatively few...
firms are able to implement, run and exploit it successfully (Chesbrough, 2003). Learning how to conduct OI, hence developing accordant competences, seems needful.

Numerous authors have investigated the reciprocal relation of corporate competences and innovation (see Danneels, 2002). On the one hand, broad “inventories of competencies” (Levinthal & March, 1993, p. 103) support innovative efforts in terms of opportunity recognition, e.g., competence to evaluate knowledge domains, a broad knowledge base, experience in collaboration with externals, and open search strategies (Cohen & Levinthal, 1990; Katila & Ahuja, 2002), and opportunity exploitation (Jansen, Bosch, & Volberda, 2005; Tsai, 2001; Zahra & George, 2002), e.g., learning practice and routines such as problem-solving methods and heuristics which often go along with reframing or bisociation, the process of giving two “self-consistent but incompatible frames of reference” (Koestler, 1966, p. 35) to one idea, and sets of learning skills, which refer to increasing returns in learning and learning how to learn (March, 1991). On the other hand, substantial commitment to innovation may support the development of new competences (Bakker, Jones, & Nichols, 1994), e.g., by analyzing new business development (NBD) teams, Bakker, Jones, and Nichols (1994) show how the initiation and repetition of specific routines such as attracting the right people to the NBD team, involving external experts in an ongoing conversation, acquiring resources and knowledge from various sources, assessing the value of such inputs with respect to the innovative goal, and transforming valuable inputs into a consistent outcome leads to the development of innovation competences.

Meanwhile, a number of competences on various organizational levels have been proposed to impact the performance of OI in particular (e.g., Fleming & Waguespack, 2007; Lichtenthaler & Lichtenthaler, 2009; Sawhney & Prandelli, 2000), e.g., by analyzing three innovation systems (“closed”, “emergent”, and “open”) from an intellectual property rights perspective, Sawhney and Prandelli (2000) make the case for a transformation of “organizational intelligence” into “relational intelligence” (p. 46). Whereas the former focuses on effectiveness and efficiency of innovative activities from the perspective of the individual firm (closed innovation paradigm), the latter takes into account the various stakeholders that need to be involved in building the common context needed for “socializing knowledge development” in “communities of creation” (p. 25) (open innovation paradigm).

Still, studies which investigate the process of competence development are very rare. The present study addresses this issue. In particular, we address the following two research questions: (1) Which competences are perceived to contribute to the success of open innovation projects in practice? (2) How do organizations develop OI relevant competences?

In order to shed light on this matter, we will continue with a brief review of competences for OI. By focusing on maturity models, the next section will add the practical perspective of competence development needed to derive an accordant management model. The subsequent section presents the employed empirical methods. The empirical results are discussed and condensed to a management framework for Open Innovation Maturity in the conclusion.

OPEN INNOVATION AND THE COMPETENCE PERSPECTIVE

In order to succeed in the attempt to establish and maintain OI based innovation systems, organizations need to monitor and professionalize accordant activities (Chiesa et al., 2008; Enkel et al., 2011). Hence there are indicators for developing OI specific competences. Such competences may refer to the actual innovation process, to the participants of OI projects, and to the organizational context of OI.

Numerous studies give evidence of the importance of providing the right organizational context for innovative activities. Henry Chesbrough, one of the most widely discussed
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www.igi-global.com/chapter/glue-binds-creative-virtual-teams/54256?camid=4v1a

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