Attributive Idea Evaluation: A New Idea Evaluation Method for Corporate Open Innovation Communities

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ABSTRACT

This article introduces a new idea evaluation method, named “Attributive Idea Evaluation” (AIE), for corporate open innovation communities. AIE aims on the contextual integration of all employees’ knowledge and is based on twenty attributes. Assigning these attributes to ideas facilitates intuitive evaluations. Ranking different ideas is enabled by enclosing corresponding numerical values, correlating to success potential. The method generated convincing results when utilized to evaluate innovation ideas within a large German service company, fulfilling most of the requirements for evaluating ideas in early phases of the innovation management process. Additional discussions with the participants and an expert interview confirmed AIE’s utility, usability, and reliability.

Keywords: Attributive Idea Evaluation, Collaboration, Design Science, Idea Evaluation, Idea Evaluation Methods, Innovation Management

INTRODUCTION

Innovations are the prime source for companies to gain competitive advantages and growth (Chesbrough, 2006; Kerka et al., 2009). Therefore, it is essential to implement effective innovation management processes. Lin and Wu (2010) examined the strategic role of a firm’s knowledge depth and revealed that the knowledge basis is important for competitive advantage. Over the last years a shift from internally generated and developed ideas towards an opening of innovation activities across the boundaries of companies was realized. This is described by the term ‘open innovation’ (Chesbrough, 2003; Gassman & Enkel, 2006). Nevertheless, latest studies in the field of innovation management indicate another shift towards corporate open innovation. Companies realize that within their company, but outside their departments traditionally responsible for development (e.g., the R&D department) exists substantial potential to contribute to innovation management. Thus, the integration and motivation of employees apart from the departments traditionally responsible for development, so called peripheral inside innovators, to participate in the innovation management process receives more attention (Neyer et al., 2009). Hence, the overall focus of the paper at hand is innovation management within corporate open innovation communities.

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In general, innovation management processes comprise four generic phases: the generation and collection, the development, the evaluation, and the selection of innovation ideas (Bothos et al., 2008). One of the most critical phases in this process is the selection of innovation ideas. It is responsible for the allocation of resources which are limited in companies and can therefore not be wasted in the development of unpromising ideas (Cooper, 1985; Justel et al., 2007). Reviewing existing research literature shows that only a small percentage of initial ideas attain commercial success. Roughly 6% of all official ideas and 14% of the promising ideas that reach the development phase become a commercial success (Kerka et al., 2009; Liberatori & Stylianou, 1995). Hence, the evaluation of innovation ideas is important for effective selection, as it provides the foundation through the investigation of innovation ideas. Recent findings from Kerka et al. (2009) indicate a lack of research in the field of idea evaluation. First, it is reported that the special issue of how to design and integrate evaluation tools has received comparably less research attention. Second, evaluation methods need to be selected with respect to the maturity of ideas. A relevant problem is that ideas with low maturity levels are evaluated in exactly the same way as ideas with high maturity levels. Closely connected to this is the third finding, saying that financial evaluation is demanded too soon in the innovation management process. Fourth, one of the top ten problems in evaluating innovation ideas is that appropriate evaluation instruments are missing. This applies especially to evaluation in the early phases of the innovation management process, as many evaluation methods are simply not up to deal with the special characteristics of the fuzzy front end.

To help close these gaps in the field of idea evaluation within corporate open innovation communities, a new idea evaluation method, the so called Attributive Idea Evaluation (AIE) was developed. This method aims at integrating company-wide knowledge into idea evaluation. Therefore, AIE provides a framework to evaluate innovation ideas through the interaction of multiple participants, which allows an evaluation using the whole knowledge base of a company. Idea evaluation will be enhanced within the firm as multiple aspects and views on ideas are included, enabling the contextual integration of all employees’ knowledge (Reinhardt et al., 2010).

The method was utilized in a partner company, evaluating 22 innovation ideas. The assessment of AIE indicated that the method is eligible to evaluate innovation ideas. The evaluation of the innovation ideas resulted in appropriate rankings, which can be used for decision making. Furthermore, this ranking can be considered reliable as two out of the ideas ranked among the best four have been approved for realization. They will be developed and implemented within the next twelve months. Hence, the overall research goal of the paper at hand is to introduce this new idea evaluation method. Therefore, the paper is structured as follows. The next section explains the research methodology applied to generate and evaluate AIE. Afterwards, general requirements for idea evaluation methods and especially for their usage in early phases of the innovation management process are extracted and inspected. Next, the initial theoretical design of AIE is described. The following delineation of an IT application will finalize the introduction of AIE. We provide results on the evaluation of AIE. The evaluation covers a descriptive design evaluation investigating the general utility as well as an experimental design evaluation to assess the usability, the performance, the results, and the acceptance of AIE and the respective IT application. The new evaluation method is discussed, based on the evaluation results. The paper will conclude by summarizing topics for further research.

RESEARCH METHODOLOGY

The development, design, and evaluation of this method were conducted as part of a university-spanning common research project, aiming at the development of an IT system to support
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