

Managers and the Innovation Process

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INTRODUCTION

Changing and continuously evolving technologies force the vast majority of organizations to proactively seek new and improved solutions in order to retain their positions. The proportion of top innovative companies among hundred biggest companies in the world has almost tripled (from 11 to 30) and their part of capitalization in total capitalization has almost doubled (from 20 to 39%) in the period between 2009 and 2012¹. Innovations in the field of science and technology are perceived to have a significant impact on organizational performance and effectiveness. To innovate, organizations need a stream of innovative ideas and suggestions from managers and team members who potentially contribute these ideas to organizational actors responsible for their realization, giving legitimacy and starting the implementation process. The purpose of this article is to review the academic literature regarding the innovation concept and current understanding of manager engagement in the process. Different aspects of innovation are reviewed, raising significant conceptual and practical questions concerning the critical role of managers in the innovation process. It provides an overarching theoretical framework and clarifies the contextual and personal determinants which impact managers' engagement in the process.

The article is structured in several sections. Initially, academic literature regarding innovation concept is reviewed: from the meaning, origins and process to a managerial perspective on these issues. Contextual determinants underpinning the innovation concept are then discussed. This is followed by a section which addresses the personal determinants. The discussion leads to a critical issue of how innovations are socially enacted by managers. Through the course of this section the explanatory model of the innovation process from a managerial perspective is developed.

Finally, the emphasis is given to the critical role of the managers in the process and how understanding of their own perspectives and perceptions is in need of supplementation and enhancement.

MEANING OF INNOVATIONS

Innovation has been defined variously in the mainstream literature. However, whilst the wording may differ, the definitions share some common characteristics. One significant commonality is that innovation can be understood as a process of idea generation, idea expression and idea implementation. Kanter (1983), for instance, defined innovation as idea generation, acceptance and implementation into the product, process or service, where the last two processes are central in this definition. Similarly, Rogers (1983) defined the concept of innovation as an idea perceived as new by an individual or other unit of adoption involved in the processes of problem identification, invention of solution, its development and commercialization into the market. These definitions emphasize an invention at the beginning of the innovation process that leads to idea creation, recognition and implementation into the innovative product, process or service. In the same vein, Van de Ven (1986) considered innovation as a network-building effort that is based on generation, adoption and implementation of ideas among individuals who become committed to these ideas and transform them into "good currency." This definition highlights the important role of individuals in the innovation process within the broader institutional and economic context. It can be, therefore, argued that innovation is affected by individual and group initial commitment to innovative ideas who then potentially contribute them to organizational actors responsible for giving legitimacy and starting the implementation process.

In general, three important aspects of innovation are recognized in the literature (e.g. Tushman & O'Reilly, 1996; Van de Ven, Polley, Garud, & Venkataraman, 1999):

1. The generation of new, useful and appropriate ideas;
2. The institutionalization of these ideas into valuable solutions;
3. The sustenance of these processes over time.

These aspects, however, are associated with potential challenges. New innovative ideas may appear illegitimate and unworthy to consider by those who are responsible for decision-making. The multiple individual perspectives on innovation may also generate conflicts and misunderstandings. Additional challenge is to sustain innovation over time that would require a "mechanism" to keep innovative ideas alive across different work contexts, to different people. It is frequently argued that in order to sustain innovation, the present and the future efforts need to be aligned with the past experiences (e.g. Bartel & Garud, 2009; Dougherty & Hardy, 1996). Whereas progress is being made, the literature remains underdeveloped regarding the examination of multiple contexts, levels of analysis, multiple perspectives and the inclusion of time, history, process and action (Pettigrew, Woodman, & Cameron, 2001).

ORIGINS OF INNOVATIONS

Innovations can originate from both inside and outside the organization. Utterback (1971), for example, found that 75% of ideas used in development of product innovations come from outside the organization: suppliers, other organizations or customers. Suppliers can be a source of innovation when firms take advantage through their innovative inputs or an interactive development where they work closely to develop products. Innovations can also originate from other organizations through collaborations, development of projects and learning from each other's experience. In the study of von Hippel (1988), it is shown that ideas for most new product innovations originated from customers in a form of forwarding information about competitors about their new innovation and based on their experience.

Business innovation activities can be enhanced by the ability to implement ideas originated from inside the organization. Van de Ven et al. (1999) emphasized the critical role of the workforce as a source of innovative ideas and recommended companies to enhance engagement in innovative practices. Amabile (1996) also noted that it is individuals who generate and develop innovative ideas and solutions to work-related problems. In addition, Morrison (2011) and Takeuchi, Chen, and Cheung (2012) argue that organizations have become more reliant on managers as a source of constructive and insightful innovative ideas. It can be, therefore, argued that understanding of managers' orientations towards innovations and subsequent formulation of appropriate business strategies are potentially useful and beneficial from an organizational perspective.

Open innovation theory assumes that companies should take note of both external and internal ideas in order to advance organizational innovation. The core idea behind open innovation theory is that organizations cannot rely entirely on their own research, but should instead buy or licence inventions from other companies. Chesbrough and Crowther (2006) interviewed potential adopters of open innovation concept and revealed that not all useful ideas come from the organization and not all ideas generated within the company can be successfully marketed internally. Valuable ideas can originate from outside (e.g. universities, competitors, government R&D, alliances) as well as inside the organization (e.g. managers and team members) and can be implemented in the market from inside or outside the organization. It can be, therefore, argued that ideas originating from inside and outside the organizations can become innovations.

PROCESS OF INNOVATIONS

Two approaches to view an innovation process can be observed in the literature. The first approach considers innovation as a linear process in fashion, progressing through a series of phases or stages of development in a predictable manner. Several phases within the innovation process can be traced back to the early works of Kanter (1983), Pierce and Delbecq (1977), Utterback (1971) and Wolfe (1994). This approach, however, has become discredited in favour of an alternative approach which views innovation as a

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