

Towards the Functional Roles of an Innovation Laboratory as a Platform for Innovation: An Observational Approach

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ABSTRACT

The main question guiding this paper is ‘how are innovation laboratories a potential source of assistance for businesses in undertaking innovation projects?’ Because of the focused and case-based nature, the extant literature on innovation laboratories falls insufficient in explaining the functional contributions of innovation laboratories towards a systematic, efficient, effective, and ultimately successful innovation management of products, processes and services of business organizations. In this esteem, the present study examines the current practices and functioning of innovation laboratories in field settings by employing a multistep research methodology. As a result, eight key functionalities and thirty associated offerings of innovation laboratories that add substantial value in maximizing the chances of success are herein determined and discussed. Moreover, the findings reveal that a particular innovation laboratory focuses on only a subset of identified functionalities and thereby influences the innovation process at a different stage and in a different manner. Accordingly, the paper debates the impacts of different functionalities towards the innovation process.

KEYWORDS

Collaborative Innovation, InnoLabs, Innovation Intermediaries, Innovation Laboratory, Innovation Management, Innovation Platforms, Innovation Support

1. INTRODUCTION

While surmounting the rapidly increasing demands for innovative products and services, many companies have realized the importance of innovation laboratories - InnoLabs - in the process of the development of new or the improvement of their existing products and/or services systematically, effectively, and efficiently. Business organizations approach InnoLabs in the search for assistance in dealing with the challenges of the often times complex and uncertain innovation process, and ultimately become successful in their innovation projects. The concept of InnoLabs is fairly recent and has largely remained scientifically unexplored and unstructured (Burger & Hermann, 2010). The general concept of InnoLabs as explained here can be embedded in the discussion about living labs as concept for research and development in which “people’s ideas, experience, and knowledge, as well as their daily needs of support from products, services, or applications” (Bergvall-Kareborn, Hoist, & Stahlbrost, 2009) are embedded in the innovation process and co-creation, exploration, experimentation, and

evaluation (Schumacher) find a physical agglomeration point. While living labs focus explicitly on open innovation processes, InnoLabs may also be used in more closed innovation settings.

Analyzing the available literature on InnoLabs, one can find that an InnoLab is a dedicated physical structure (Magadley & Birdi, 2009) together with a group of people (Gey, Meyer, & Thieme, 2013) enabling the configuration of new innovation projects (Lewis & Moultrie, 2005) through the provision of different resources and mediating services (Memon, Meyer, Meyer, & Fähnrich, 2014). This anticipates that an InnoLab facilitates three key components. One, a physical space which may range from simple meeting room to a large creative space (Burger & Hermann, 2010). Two, the resources including financial support and technological tools. The technological tools include creativity tools for the generation, discussion, and assessment of the ideas, and the special equipment, software, and field-specific technical tools (Thieme & Meyer, 2011). Three, a facilitator who integrates methodological expertise into the process (Gey et al., 2013).

Increasingly, the authors have previously argued that not all labs work in a similar fashion. The provision of physical space is also not an integral part of the lab structure. The authors have recognized mobile InnoLabs which do not own a dedicated physical space on their own. These labs are actually a group of people facilitating the innovation process either on the client site or a third party site. Furthermore, the authors have found that the existing labs are equipped with varying motives to achieve certain innovation related goals which are also reflected in the service portfolios that they offer to their clients (see Memon, Meyer, Meyer, Thieme, and Sonnenberg (2014) for more details). The resultant service diversity among InnoLabs suggests that although the overall goal of InnoLabs is to assist business organizations in undertaking their innovation projects, different InnoLabs are focusing on different aspects of the innovation process, and in that way, a variance can be observed in their respective impact towards innovation success.

On the other hand, the innovation process is characterized as a complex and resource intensive activity. According to Marques and Cunha (2014), an innovative offering must attain one of the three points: 1) satisfy a previously unmet market demand, 2) bring a new technology, product, or service to the market, and 3) change a market or create a new market. In pursuance of this, innovation process tends to be a multifaceted activity involving a number of tasks, such as identification of the ideas and needs, planning and derivation of customer requirements, concept development, preliminary and detailed design, prototyping and testing, and implementation (Marques & Cunha, 2014). Therefore, the effective and successful implementation of innovation process requires that the business organizations have access to a number of physical (environment, infrastructure, and technology), financial, and human resources which many organizations, especially the SMEs, often fail short of while realizing their innovation plans. As a result, they are faced with several endogenous (internal to the organization) and exogenous (external to the organizations) barriers of innovation (Madrid-Guijarro, Garcia, & van Auken, 2009). Examples of exogenous barriers include the difficulties in obtaining technological information, raw materials, finance, and information about customers' needs, demands and perceptions; while the endogenous barriers include the lack of internal funds, technical expertise, management time, technological tools, and the attitude towards the risks associated with innovation (Hadjimanolis, 1999). Increasingly, on the basis of individual lacking and innovation challenges, businesses strive for different types of innovation assistance. Therefore, a business organization seeking innovation assistance needs to understand where a certain InnoLab depending on the offered functionality may be able to support and where it might not be able to. Nevertheless, the existing definition of InnoLabs gives only a holistic view of their functioning and is, therefore, deficient for understanding the functional contributions of an InnoLab. It is still ambiguous that what type of innovation assistance are the existing InnoLabs offering, and how they are a potential source of assistance for business organizations in undertaking innovation projects.

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