



11th International Conference Interdisciplinarity in Engineering, INTER-ENG 2017, 5-6 October 2017, Tirgu-Mures, Romania

Open innovation model: enabling the market uptake of innovation

Banu Geanina Silvana^{a,*}

^aProcess Innovation Nucleus S.R.L., 289 Calea Bucuresti Street, Mihailesti, Giurgiu, 085200, Romania

Abstract

The paper presents a case study on how to support the innovation process of a publicly funded research and innovation project by implementing an open innovation model. The project hereinafter referred to as *NANOAPPARATUS* is being implemented by Process Innovation Nucleus S.R.L. (*PIN*) – an innovative SME (Small and Medium-sized Enterprises) from Romania. The successful market uptake of innovation requires a complex architecture of the innovation process designed to support and push a new idea throughout its life cycle. Research methodology comprises of a comparative analysis of the principles of closed and open innovation aiming at facilitating the design of an open innovation model. Still, a standard language, i.e. Business Model Process and Notation (BPMN), was put to use in order to transform the innovation process into a dynamic flow of activities allowing for the documentation, analysis, simulation and evaluation of the innovation process.

© 2018 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 11th International Conference Interdisciplinarity in Engineering.

Keywords: Open innovation framework; Business Process Modeling.

1. Introduction

Open innovation represents a complex and interdisciplinary approach on the innovation process, being one of European Commission's instruments for implementing the EU Research and Innovation Policy having three goals: Open Innovation, Open Science and Open to the World [1]. Modeling the innovation process in an open innovation paradigm requires managing the organization as an open system using both internal and external ideas, and internal

* Banu Geanina Silvana. Tel.: +40-724-384-111.

E-mail address: pin.company.office@gmail.com; geanina.banu@pinucleus.ro

and external channels to market, when trying to advance technology and generate value [2]. As such, the research problem refers mainly to creating architectures of the innovation process aiming to increase innovation success rate.

Nomenclature	
BPMN	Business Model Process and Notation
BPM	Business Process Modeling
PIN	Process Innovation Nucleus S.R.L.
R&D	Research&Development
SME	Small and Medium-sized Enterprises

2. Methodology

Research methodology comprises of a comparative analysis of the principles of closed and open innovation aiming at facilitating the design of an open innovation model. For the purpose of the comparative analysis a literature review of the principles of closed and open innovation was performed. Based on that, new principles of open innovation were drawn up and an open innovation model was designed and implemented to support the innovation process of *NANOAPPARATUS* – a publicly funded research and innovation project. Still, a standard language, i.e. BPMN 2.0, was put to use in order to transform the innovation process into a flow of activities.

When designing an open innovation model with the purpose of supporting the innovation process, the following main steps should be considered:

- Creating an innovation framework based on networking – formal and informal collaborations with various stakeholders;
- Creating a knowledge and information value chain aiming at ensuring the scientific input of the innovation process;
- Modeling the innovation process using standard notations, such as BPMN, and BPM instruments. One example of such freeware instrument that allows for process mapping is Bizagi Modeler. The research allowed for identifying the benefits of using standard notations and BPM instruments, thus emphasizing the importance of efficiently communicating the innovation process to all users and stakeholders.

3. Results/main findings and contribution

Previous innovation models were a “closed” approach to innovation, having different principles compared to current “open” innovation model. In order to emphasize the differences between the two approaches, Table 1 synthesizes the principles of closed and open innovation.

Table 1. Open innovation principles versus closed innovation principles. Adopted from [1], [2], [3], [4] and [5]

CLOSED INNOVATION	OPEN INNOVATION
Bring experts to work for the enterprise as employees (i.e. use internal experts only)	Bring experts to work for the enterprise either as employees or as collaborators (i.e. use the input of both internal and external experts)
In order to profit from R&D, all stages of the innovation process should be undertaken by the enterprise	External R&D can bring significant value as long as the internal R&D is conducted to identify and claim the value needed to support and advance the internal innovation process.
The first market uptake of innovation is ensured only if the innovation is created and developed internally	Innovation exploitation is possible even when it was not created and/or developed by the organization itself. This is for example the case with technological transfer.
Only by being the first to achieve the market uptake of innovation, an enterprise can ensure first place among	Designing and implementing an efficient business model is more important for the enterprise than focusing on getting to

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات