

Strengthening of Open Innovation Model: using startups and technology parks

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Abstract: The R&D center of a Chinese multinational subsidized in Brazil has been making open innovation a synonym for its strategy based on partnerships with other companies, universities, and research institutes in Brazil. Still thinking how to strengthen its open innovation model the company seeks for new forms of partnerships to create an ecosystem for generating disruptive innovation. The R&D center can be a bridge to attract startups companies and develop a business model that can generate disruptive innovations for the multinational products. This paper studies how this open innovation strategy can benefit from a partnership with startup.

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1. INTRODUCTION

The R&D center of a Chinese multinational located in Brazil was created in 2008 in order to support research and the development of regional projects and thus increase the company's competitiveness and innovation. Its mission is to transform knowledge into high value-added products, processes and services, using creativity, flexibility and commitment to ensure the best technological solutions to the market and, consequently, make the R&D department in Brazil to become known worldwide in providing technological innovations following the information technology and multimedia.

The beginning was quite challenging for several reasons, among them: the fact that Brazil was launching a new digital television system with new standards to be implemented; The company did not have enough knowledge to work on complex projects (nor expertise needed to carry out the development); Lacks the confidence of the company's headquarter on the viability of putting together a group of R&D in such a short time to achieve the proposed objectives and meet the competitive market of consumer electronics..

The company was already well established in the sale of monitors and sought space for their new television products, especially in the potential market in Brazil that was migrating to digital television. Its first step was to hire a Brazilian

director, who understood the business, to set up an internal team to begin the development of project-based television in the Brazilian Digital Television System specifications.

The strategy adopted by this director was based on open innovation. The idea was to break the paradigm that prevailed in the thinking of the company. In other words, the goal was to assemble a team capable of full "in house" development and protect the intellectual property generated by discussing internally with other departments to bring the product to market - concept of closed innovation (Chesbrough, 2003).

However, the responsible for making the R&D happens, based on his professional experience, decided to pursue a different path, something that would bring more agility and a more constant flow of knowledge to the company, allowing a faster product development and access to different markets for the products developed using the concept of open innovation.

Chesbrough et al. (2006) says that the useful and necessary knowledge is very widespread and even the best and most well prepared R&D centers should be able to identify, connect and leverage this knowledge from external sources as a key process to reach innovation. Following this line of reasoning, the center of R&D decided to look outside the company and follow this strategy until then new to the company (Fig. 1).

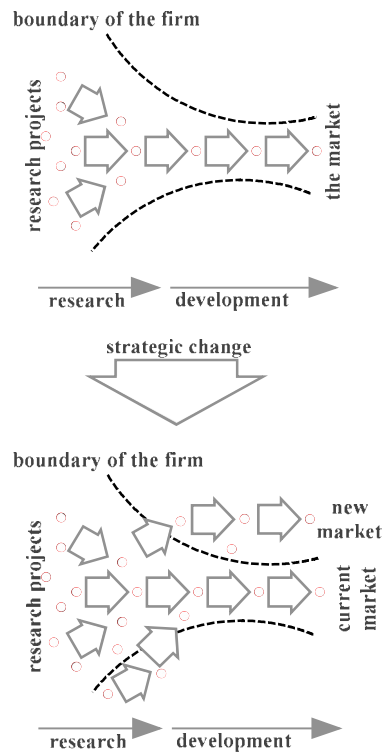


Fig. 1. Transition from closed to open innovation.

The R&D center has defined a series of activities to strengthen its team and develop diverse and challenging research projects. Some partnerships were made with research institutes, universities and other companies, thus adding knowledge and technologies that did not exist so far. A new way of working was adopted to accommodate this difference in strategy, including infrastructure development and project management. Something crucial in this process was the proximity of interested headquarters' stakeholders to the projects and partners in Brazil and then they could understand this new form of work and become more confident to move on.

The R&D center has developed several projects following this strategy and achieved great results and won the company's headquarters and company's global R&D trust. However, according to the management and board of the R&D center in Brazil, it is necessary to advance in this model and make it even more collaborative and capable to generate disruptive innovations. This strategy can add even more value to the products and also bring more competitiveness and innovation to the company's business by developing technologies that are used not only regionally, but also globally.

The objective of this paper is to analyze the current state of implementation of open innovation developed by this Chinese multinational in Brazil and understand how it can benefit from the flexibility and dynamism inherent in startups and what initiatives are being taken by the company in this regard. It is, therefore, a case study, combining interview with the direction of the center of R&D in Brazil, business environment observation and literature review in search of

strategies adopted by other companies or national innovation systems around the world.

2. OPEN INNOVATION

According to Chesbrough (2003), open innovation can be defined as the intentional use of inputs and outputs of knowledge to accelerate internal innovation and expand market possibilities for use of these innovations. It is based on some important principles such as:

- Not all needs can be addressed within the company and it is important to seek knowledge and people outside the company;
- Rely on external R&D centers and use the internal R&D to make the management and development together, taking account of the part and not the whole;
- It is not necessary to rely only on the internally originated research to profit from it;
- Build a good business model is often better than to be the first to reach the market;
- If the company uses the very best of the internal and external, is very likely to succeed.

These principles were created by Chesbrough (2003) to compare the usually practiced with the more collaborative visions and initiatives. Most competitive companies are no longer proud to say that a particular technology was "developed in house", because the results of this open environment tend to be better (Burcharth, 2014).

The management of innovation is prone to the use of third parties to achieve greater agility and flexibility, forcing companies to reconsider their strategies and processes. By becoming a network of organizations, the mentality of "do-it-yourself" has become outdated (Gassmann, 2006). For Tung et al. (2013), no organization or institution has reached a leading position in the development of technology by accumulating all the knowledge in isolation, but achieved this through a mutual collaboration environment and rapid spread and transmission of knowledge.

According Huizingh (2011), open innovation is a kind of umbrella covering, connecting and integrating a range of activities that actually existed. This made academics and practitioners to rethink the design of innovation strategies in a connected world.

Learn how to implement open innovation is an important step and Gassmann and Enkel (2004) identify three ways to put into practice the process. The first process, called "outside-in", happens when there is a greater integration of the company with its suppliers, customers, partners and other sources to facilitate the creation and flow of knowledge.

This process is widely used by companies with low technological capacity and they join other companies to license patents, obtain technologies and thus add value to their products.

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