

Chapter 47

Open Innovation for Non– High–Tech SMEs: The Case of the Users Association of Advanced Technologies Program

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ABSTRACT

This chapter presents a case of SMEs from non-High-Tech sector, which would normally find innovation harder than sectors with intensive R&D. The Users Association of Advanced Technologies is a national program that helps SMEs in searching, identifying, selecting, and implementing technologies, methodologies, and processes by reducing the resources required for that activity. The program reduces operation as well as managerial costs and allows SMEs to acquire the innovation they require, which they could not otherwise get. The initial concept of the program was meant for Israeli SMEs, however, as the concept is universal, the case study argues that the concept and basics can be adopted by other countries/regions. It can also be regarded as a risk mitigating program executed on behalf of SMEs. The readers can identify and define the concept as well as the basics to be adopted for other countries and regions. The program presented through this case does not support R&D, or the creation of new knowledge by itself, and therefore presents a complementary activity to R&D support programs.

ORGANIZATION BACKGROUND

General

SMEs suffer from scarcity of resources, especially management resources (Porath, 2009). This makes it more difficult for SMEs to innovate.

Open Innovation requires that the firm be ready to identify the innovation it needs, select it and be ready to implement it, whether it is a new technology, methodology or other capability that may be required. However, lack of resources and especially management resources will present the SMEs attempting to acquire the innovation as searching, identifying, selecting and implementation with difficulties.

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One way of overcoming the barriers of resources scarcity is to share the cost while not reducing the benefits. By coming together the SMEs can share the resources required for the process, and while sharing the results, the benefit is not diminished. While this may seem a good solution it still poses several questions regarding executing it. How do the SMEs come together, or how do they create the confidence required for the cooperation? How do they make sure that managing the cooperation is not costlier than the original costs of open innovation?

The chapter presents a national program that aims to assist SMEs to acquire the capabilities required for improved competitiveness, under the conditions mentioned above.

The chapter first presents the theoretical background. It presents some of the relevant insights for Open Innovation, the out-sourcing of research and interrelations of Industry and Academy. The role of the government and the Triple-Helix concept are both mentioned briefly. That part is followed by the background and innovation environment of the specific program, the Israeli Users Association for Advanced Technologies (UA), which in turn is followed by a specific case study of an association. The chapter ends with an analysis and conclusions. The chapter shows that the said program is efficient in reducing the resources demand on SMEs, and therefore, the risks resulting from dedicating resources when they are scarce, and being effective in getting the innovation capabilities for the SMEs.

The program presented, while being active in a specific environment, culturally, socially, and legally, has many general characteristics that make it a global solution. The author argues that by reading through the end of the chapter, the reader should be able, to identify:

- The Open Innovation characteristics of the UA;
- The decision parameters leading to the formation of the UA;

- The alternatives available/missing for joining the UA;
- How the knowledge management by-laws, help/hinder the operation and results of the UA project;
- The support the UA can give the firms in terms of Innovation and competitiveness;
- The limitations of the support UA can give the firms in terms of Innovation and competitiveness; and
- Potential modifications to the model that can be modified and adapted to the reader's relevant environment.

Theoretical Background

The literature review of a topic such as Open Innovation and especially keeping in mind the case study presented in this case is complex. In order to reduce repetitiveness from a generic literature review, the literature review for this case has been kept very much to the point. The author argues that, if the readers feel the theories mentioned below were not fully analyzed, that is intentional, and the focus has been kept solely on the relevant aspects in each theory for the case studies. However, supplemental and additional background can be found at the end of the chapter through further recommended reading.

Economic models dealing with firm's cooperation in technological innovation date back to the work of Katz (1986), and were extended in following years to include asymmetry, central laboratory, spillover consideration, different firm size and more, over the following 20 years (Kamien, Muller & Zang, 1992; Kamien & Zang, 2000; Miyagiwa & Ohno, 2002; Fontana, Geuna, & Matt, 2006). Others dealt with the cooperation and learning of firms (Vonortas, 2002). The more recent models have included case studies and empirical data based on PhD theses (Olk, 1991; Porath, 2008) and also included cooperation with research entities in addition to cooperation with firms.

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