Chapter 7

Theoretical Model for a Local Economy Open Innovation Program: A User Organization

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ABSTRACT

This chapter presents a model of open innovation as a collaborative effort of firms, mostly SMEs that are managed under a government support with the assistive involvement of academia. While normally industry-academia cooperation is R&D focused, the model presented is a model of open innovation not involving dedicated R&D. It deals with the process of assimilating existing technologies and methodologies; the model focuses on search, identification, and implementation phases to improve competitiveness through open innovation strategies. The model claims that specifically for SMEs, innovation not related to R&D, and especially open innovation, is hard to deal with alone. Therefore the model presents a group of SMEs working together towards that end, and the role of the governing authority supporting them. The model is supported by a short case study of a national program of Israel, the Users Association for Advanced Technologies.

INTRODUCTION

Open Innovation is a multi-disciplinary area of research, as it deals with the concept that for organizations it is not possible to relay just on their own research and that they need to license or buy technologies and methodologies from external sources (Chesbrough, 2003). The focus selected here is not on an R&D process, but on the selection and acquisition process of the technologies and methodologies. There are several areas that deal with it, and within each area there can be more than one aspect that is relevant. Among them could be counted economic, organizational, legal, and network aspects.

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Economics

The model can be viewed from the economic point of view, under the following theoretical aspects:

First, as a transaction including identification, acquiring and implementing the acquired knowledge – innovation. This analysis, under the transaction costs theory regards the firms as limited resources SMEs. It also includes the role of a governing authority in reducing costs and in influencing behavior decisions in the long term.

Second, by analyzing the influence the joint acquirement of methodologies and technologies may have on the market competition of the firms involved. Why do firms engage in the acquirement not of unique knowledge that can bring the single firm an advantage, but rather a joint acquirement of a known technology / methodology?

Organization Theory

The case of Open Innovation from the organizational point of view, has several aspects such as:

First, regarding the influence such an activity would have on the interaction of the firm with its environment. Innovation which is an important capability of the firm is imported, jointly with others from an external source. How would that influence the definition of the firm boarder, the development of internal routines in response to the external routines of the consortium?

Second, regarding the influence such cooperation may have on the firm from rate of spillovers, and of human resources turnover, up to influencing a more coherent structure and internal routines in the firm.

Following the above, the role of the government and the Triple-Helix concept (see key terms below) is also discussed briefly in the model.

Legal

The model presented has two main legal aspects relevant to its analysis:

The first is the legal environment under which the operation is carried out. As the activity described in the model has strategic value for the firms, it is important that the firms entering it would be familiar with the rules, by rules or regulations relevant to it. This familiarity makes the firms feel comfortable with them, allows them to enter the process. Lack of such clarity, and understanding would lead to problems that could cause the shutdown of such programs. The legal aspects of the activity and their transparency are of major importance as a public entity and public funds are involved.

The second relevant aspect is the transfer of knowledge. As that knowledge, new or old, may be proprietary, it is important to review the legal aspects dealing with the Intellectual Property rights which change from country to country. These include the relevant agreements between the firms involved in the activity. As before, transparency and clarity beforehand, play a major role.

Regarding the legal analysis the specific case study must be analyzed within the legal environment it is active in, conclusions derived from the case study into the model should be dealt with caution.

Networks Theory

The activity discussed and the model are operating in what may seem to be a network environment (Laredo, 1998). However, the network environment will not be dealt with in this chapter as it would seem to be of less prominence to other theories. The network effect is felt by the author (Porath, 2008) to be stronger in R&D consortia. In the specific case of the model described below, the firms come together in order to learn and implement from sources external to the group. Any intergroup learning is incidental.

The chapter begins by laying down the theoretical foundation for the model. A short literature review has been presented to illustrate the main assumptions of a few of the relevant theories, which