Chapter 9
Managing Risks in the Innovation Projects in the Services Sector: A Case Study for the Mobile Communication

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ABSTRACT

The purpose of this chapter is to provide a review on the similarities and/or the heterogeneity of the innovation taxonomy that could be found in the economic domain highlighting that in the specialized literature different terms are used for the same type of technical change and innovation and the same term is used for different types of innovation. This classification ambiguity represents a challenge when comparing different studies. Schumpeter highlights how technical knowledge is acquired both through invention and innovation. A detailed review of the innovation taxonomy in an economy of innovation will be provided. Taxonomy of innovation in the technology management is also provided. An analysis of the innovation projects characteristics in service industry is presented, as the basis for a proposed framework for managing risks. A case study for the Romanian mobile communication industry using data provided by specialized publications is presented at the end of the chapter.

INTRODUCTION

The main objective of this chapter is to provide an overview of the similarities in regards to the taxonomy of innovation in the economic context, considering that the technical knowledge is acquired both through invention and innovation. More specifically, the chapter provides a detailed review of the innovation taxonomy first in an economy of innovation and second in the technology management. An analysis covering the innovation projects in the mobile communication services’ market in Romania is conducted using data extracted from specialized databases.

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BACKGROUND

The Concept of Innovation

Along with the manifestation of innovation as a determinant factor of the economic and social growth, the type of innovation (Abernathy & Clark, 1985), its role and its factors represent all an increasing and broad interest for researchers (Celikel-Esser & Villalba, 2008).

According to the online dex, the innovation represents the action to innovate and its outcome. To innovate means to make an innovation, that is to introduce modifications; to introduce something new; to renew; to make a change; to introduce a novelty in a field, into a system etc.; to introduce, to adopt, to deploy an innovation. Also, according to the dictionary, the innovation is novelty, change, transformation; solving a technical or work organization problem, with the aim of improving the labour productivity, technical improvement or rationalizing the applied solutions. The Oslo manual (OECD, 2002), defines innovation as the implementation of a product (good or service) that is new or significantly improved, or a process, a new method of marketing, or a new organizational method in business practices, workplace organization or external relations. The innovation becomes such a broad concept that encompasses a wide range of activities and processes as for example markets, entrepreneurship, competition and networks, abilities, skills, creativity, knowledge transfer etc (Damanpour, 1991). The studies regarding the research and development activities performed by the companies are more useful for measuring the technology-based activities, representing only part of what it can be included under the innovation umbrella and have a high relevance for the organizations in the production domain and less for the ones operating in the services sector. In 2006, the Organisation for Economic Co-operation and Development (OECD) launched the OECD project called Innovation Microdata Project, the first large-scale project that analyzes the innovation data at a company level based on a number of innovation surveys conducted in twenty countries. Four types of innovation can be identified, namely the product innovation, the process innovation, the marketing innovation and the organizational innovation.

According to the National Institute of Statistics in Romania, the innovation is an activity that has as a result a product (good or service) new or significantly improved, launched on the market or it represents the introduction inside the firm of a new or significantly improved process. The innovation is based on the results of new technologies, the technological developments, new combinations of existing technology or use of other knowledge obtained by the respective firm. The innovation’s expenditures are made for a number of activities such as the internal research and development, the external research and development, the acquisition of machinery, equipment and software and the acquisition of other external knowledge.

A distinction should be made between invention and innovation, as they are concepts that should not be confused. According to Ciumara (2011), the invention consists in creating a new configuration, compositions or materials, device or process. The invention is the first appearance of new ideas (concept) for a new product or process, while the innovation is the first marketing of the new idea (Fagerberg, 2004). This new idea can be a recombination of some old ideas, a scheme which represents a challenge to the present order, a formula or a unique approach that is perceived as new by the concerned persons. The innovation represents a marketable application in practice of an invention, an integration of the invention in the economic and social practice. If the invention is defined as the act to imagine, to invent, to create something new, or the faculty to discover something, to create by imagination, the innovation is defined (especially in economics) as the whole process from the emergence of an idea to its materialization (launch of a new product) by market research, prototype development and early production phases.