

## Introduction to Techno-Sectoral Innovation System Modeling and Functions Formulating

**Authors :** S. M. Azad, H. Ghodsi Pour, F. Roshannafasa

**Abstract :** In recent years 'technology management and policymaking' is one of the most important problems in management science. In this field, different generations of innovation and technology management are presented which the earliest one is Innovation System (IS) approach. In a general classification, innovation systems are divided in to 4 approaches: Technical, sectoral, regional, and national. There are many researches in relation to each of these approaches in different academic fields. Every approach has some benefits. If two or more approaches hybrid, their benefits would be combined. In addition, according to the sectoral structure of the governance model in Iran, in many sectors such as information technology, the combination of three other approaches with sectoral approach is essential. Hence, in this paper, combining two IS approaches (technical and sectoral) and using system dynamics, a generic model is presented for a sample of software industry. As a complimentary point, this article is introducing a new hybrid approach called Techno-Sectoral Innovation System. This TSIS model is accomplished by Changing concepts of the 'functions' which came from Technological IS literature and using them into sectoral system as measurable indicators.

**Keywords :** innovation system, technology, techno-sectoral system, functional indicators, system dynamics

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