

Chapter 11

Creating and Managing an Innovation Ecosystem

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ABSTRACT

Research reveals that Innovation ecosystem model successfully focuses on value creation for customers and other stakeholders in the ecosystem. The elements in the ecosystem adapt to the environmental changes and reconfigure based on the knowledge base created. The use of ICT platforms has added critical value and novelties for today's innovation ecosystem. Innovation ecosystem leads to knowledge creation and dissemination. This also involves human capital development and opportunity recognition. The co-incubation model of Higher Educational Institutes (HEIs) with industries plays an important role for fostering entrepreneurship through ideation- incubation –enterprise creation bringing the benefits to all levels of the society. HEIs and industry collaboration generated an Education-Enterprise (E-E) model. IIT Kharagpur utilized the E-E model to support grass root level entrepreneurs for enterprise creation. This leads to the evolution of EE model. IIT Kharagpur focuses on creation of business solutions through local entrepreneurs through global collaboration in the education, environment, energy, and health domain. Innovation ecosystem creation and management face great challenge due to the complexities in growing economy. This chapter represents live cases dealing with challenges of creation and managing of innovation ecosystem.

INTRODUCTION

The concept of knowledge, technology, and information diffusion among individual, enterprise and institutions in building the requisite synergy for value creation has widely been discussed in

the realm of a “flat world” as described by Friedman (2005). Novel innovative concepts have systematically been transformed into processes which finally add value with the introduction of new products or services. The innovation ecosystems are defined at different levels of opera-

DOI: 10.4018/978-1-4666-2116-9.ch011

tions like national, regional, and local. Etzkowitz (2002) refers to the creation of regional innovation ecosystem as a prerequisite to the creation of knowledge and innovation space where ideas generated in a 'Triple Helix' of multiple reciprocal relationships among institutional sectors (academia-government-industries) work together to achieve societal goals.

Disruptive technologies initiate for a change. The quality improvement relying on disruptive technology seems to be inefficient due to its uncertainty and uncontrollability. The ecosystem really cannot wait for new technologies come in and change the horizon. This seems that a new model for innovation is in urgent need for a continuous flow of new products and services. Proper shape to innovation is given only when ideas are transformed into useful commercial and social products. The word "*Innovation*" originated from the Latin word *innovatus*. *Innovatus* is the noun form of *innovare* which means "to renew or change," stemming from *in-*"into" + *novus*- "new". Historically the word "*Ecosystem*" derived from the Greek word *oikos*, meaning "home" and *systema* or "system". Ecosystem can be defined as an open system that constitutes all the living organisms and non-living components within that system. Within this system there exists a relationship between individual-individual and individual-non-living components. Within a certain time and area the flow of information, energy and material generated by innovation system can be defined as innovation ecosystem. Along with the flow of these innovative outcomes the system even contains innovation organism and environment. In a natural ecosystem living and non-living entities are dependent on each other. It is hard for the living organisms to avail the energy needed for their survival without non-living entities. Where as without living entities an ecosystem cannot be formed. Similarity can be found in the innovation ecosystem where innovation environment, innovation population and innovation manage-

ment population together forms the innovation ecosystem.

Innovation Ecosystem

Innovation ecosystem is a model which enables participants across enterprise boundaries to focus on value creation for customers and accelerate the transition from research to production. The main novelties for today's innovation ecosystems compared with earlier times can be found in the use of ICT platforms. This is because, today any entrepreneur with a good idea can, irrespective of geographical location, launch a business application for Apple's iPhone or Google's Android platforms and become a successful business. To benefit from the agglomeration or ecosystem of that time you had to be physically present in that place and time is no more a valid argument. The information and communication technology platform makes it possible for the innovators to develop a deeper relationship with the customer. This Platform provides a common base to all the interacting organizations by providing them an information system. This helps them to eliminate the time required to react and adopt the changes in the market. An innovation ecosystem model encompasses more than knowledge inputs and incorporates all relevant factors and stakeholders that generate value to customers. Innovation ecosystems build a collaborative advantage and a strategic asset for growth and profitability for future. A self-sustaining ecosystem is needed to make innovations viable. In Schumpeter's words, innovation ecosystems are primarily about successful innovative regions, successful ICT platforms or new industries and entrepreneurs and investors from all over the world jump on the bandwagon of these successes.

Knowledge creation through innovation ecosystem leads to the discussion of knowledge based economy. This also involves human capital development and opportunity recognition. Hu-

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