

The growth of commercialization – facilitating organizations and practices: A Schumpeterian perspective

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Abstract. During the long economic upswing of the 1980s and 1990s, the successful commercialization of new technology went together with the appearance of new financial vehicles, new organizational forms, and new practices promoting and mediating the transfer of the new technology from lab to market. They included business incubators, technology parks, venture capitalist firms, operators specializing in mergers and acquisitions, venture funds, and initial public offerings in the stock market. Commercialization-facilitating organizations and practices like these (here called “commercialization facilitators”) are themselves born by dynamic processes in a capitalist economy that can be analyzed in Schumpeterian terms. We discuss at some length a unique university-based institution that has an impressive track record of creating and operating new facilitating models: the IC² Institute (Innovation, Creativity and Capital) of the University of Texas. During a twenty-five year period, IC² came to be instrumental in the conversion of the local economy to the high tech age. The Institute’s activities span the range of the technology transfer and commercialization process, from the development and dissemination of new knowledge to the actual running of business incubators. We identify the IC² Institute as a “second order” facilitator and discuss its possible global evolution into a “third order” facilitator.

Keywords: commercialization facilitators – commercialization infrastructure – research to wealth continuum

1 Introduction

During the long economic upswing of the 1980s and 1990s, the successful commercialization of new technology went together with the appearance of new financial

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vehicles, new organizational forms and new practices promoting and mediating the transfer of the new technology from lab to market. They included business incubators, technology parks, venture capital firms, operators specializing in mergers and acquisitions, venture funds, and initial public offerings (IPOs) on the stock market. Commercialization-facilitating organizations and practices such as these (here called “commercialization facilitators”) are themselves born by the favorable commercial conditions during a prolonged business boom; at the same time, they sustain and reinforce the regional impacts of the boom. In the scramble to convert the progress of basic research and new knowledge into new products, commercialization facilitators promote and speed up the transfer of new technology from the (academic, government, or commercial) laboratory to its successful introduction in the market.

A crucial aspect of Schumpeter’s understanding of the business boom was the accumulation of new and as yet unrealized technological opportunities during the preceding downturn, and the cascading of innovations during the upswing. During the boom years of the 1990s, this clustering of innovations was reinforced in most regions by the appearance and operation of powerful commercialization facilitators.

Section 2 below identifies a list of model types of commercialization facilitators and discusses their characteristic modes of operation. Each facilitator typically addresses the needs of some particular group of potential entrepreneurs (located in some geographical region, or in some particular industry, such as the software industry) at some particular time during the life cycle of a new company (during the initial research phase, during test marketing, after the first round of equity financing etc.). Some facilitators promote the creation of “technoports” or high tech regions that harness powerful positive externalities spurring the growth of new technology and new companies.

Commercialization facilitators are instances of economic institutions and as such would never attract the attention of main-line economic theory. Recently, however, several authors have argued for the need to bring institutions into evolutionary growth theory, among them R.R. Nelson (Nelson, 2002). Distinguishing between “physical technologies” and “social technologies,” Nelson calls for an understanding of the growth of social technologies during the evolutionary process. Others have pointed at the role of the knowledge-intensive service industry in fuelling the high technology boom. Indeed, business incubators and venture capitalists all offer knowledge-intensive business services¹ to their tenants and clients. As we see things, a novel *commercialization infrastructure* is gradually being put in place in the modern high tech economy. This infrastructure features a new kind of economic agent – commercialization facilitators.

Wynarczyk and Wynarczyk (2002), discuss the operations of the European Business and Innovation Centers (BICs) in economically less favored regions and find their rationale in the efforts of Schumpeterian entrepreneurs to break the circular flow and inertia of established practice.² Our own work aims further, demonstrat-

¹ So-called “KIBS,” see Lundvall and Borrás (1997).

² For further comments on the BIC program, see Sect. 2 below.