

The concept and future of technology incubation

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Technological advances play a critical role in industrial development and economic growth. However, the absorption of new technologies by entrepreneurs is far from simple. When it comes to high-tech small enterprises, the situation gets further complicated. Technology incubators create an environment conducive to entrepreneurship in technology-intensive enterprises. Reviewing some of the available literature and drawing on the experiences of some developed countries, this article provides an overview of what technology incubation really means and where it is likely to lead.

Introduction

The history of the 'co-location of industries' can be traced back to the 19th century where the world's first planned industrial park commenced in Manchester in 1896.¹ However, the concept of incubation appears to have taken off on a world scale in the late 1970s.

The development of industrial facilities has traditionally been centred on cities and surrounding areas, where infrastructure facilities of electricity, transportation and telecommunication are readily available. But, with a greater understanding of the central role played by technology in economic and industrial development, there has been a shift of emphasis away from these traditional factors of location. Instead, attention is now heavily focussed on promoting knowledge-based growth of firms. Also, decisions pertaining to location of industries are predominantly influenced by

other factors such as proximity to universities, research institutions and favourable markets. The fundamental goal, however, will continue to be the development of an optimal environment for industrial occupants.

Definitions and nomenclature

Research park, science park, technology park, technology incubator, business incubator and technopolis are some of the frequently used terms in the literature on the subject. While most of the structural features attributed to these different terms are common, for the purpose of this article, an attempt is made to identify any features that could differentiate one from another. A good starting point to this end would be to review and summarize some of the definitions and classifications associated with the nomenclature of these terms as have been interpreted by various scholars (Figure 1). It has to be noted that the features listed represent

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