

Business Incubators Help SMEs Entering in Industrial Chain

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Abstract: Incubators for SMEs and entrepreneurial endeavors have been popular for nearly 50 years in the US and has been a popular way to create growth and job creation in nations, regions and industries. This article analyses the purposes and functions of incubator, points out the core function of incubator in technical incubation innovation system in China. Describes incubator's present situation and development. In this article, achievements and imperfection of China's incubators are also analyzed, Proper countermeasures are suggested.

Keywords: Incubator, SMEs, Entrepreneur, Development, Countermeasure.

1 Introduction

The National Business Incubation Association (NBIA) of USA defines business incubators as: "a comprehensive business-assistance program targeted to help start-up and early-stage firms, with the goal of improving their chances to grow into healthy, sustainable companies."¹ Furthermore the definitions of business incubators by a number of international organizations such as UN-ECE and ANPROTEC have a common feature that is to help the "growth and survival of new companies through support or help". In 2009, Under the background of world financial crises, President Obama of USA has pledged \$250 million a year in federal funds to seed a regional network of such organizations--an effort aimed at growing jobs and innovation.²

The formal concept of business incubation began in the USA in 1959 when Joseph Mancuso opened the Batavia Industrial Center in a Batavia, New York, warehouse. It began as a real estate venture, essentially an attempt to utilize unused manufacturing building space. Then, some incubators have evolved to provide a range of services to help businesses succeed. From the 1970s onwards, business incubators in developed countries became a tool for improving regional and national competitiveness by fostering the emergence of innovative and technology-based firms. This shift was accelerated in the 1980s by linking the incubator concept more closely to higher education and public research institutions. Incubation expanded in the U.S. in the 1980s and spread to the UK and Europe through various related forms (e.g. innovation centuries, science parks). Nowadays, the industry has grown dramatically, both in terms of the number of programs in operation and the depth and breadth of services they offer. The National Business Incubation Association (NBIA) estimates that there are about 7,000 incubators worldwide. 1,000 are in Asia (approximately half in China), 1,400 in North America, with 1,115 incubators in the United States. 900 in Europe and close to 400 in Latin America.

Incubation activity has not been limited to developed countries. Incubation environments are now being implemented in developing countries and raising interest for financial support from organizations such as UNIDO, the World Bank and APEC. Business incubators are especially active in particular sectors which are relatively technology-intensive. Enterprises targeted under such schemes are typically small start-up companies which require support in terms of finance, technology and marketing.

2 Purposes and Functions of Incubator

The first incubator was simple: utilize unused factory floor space. Now, broadly speaking, the purpose

¹ Adkins, Dinah, A Brief History of Business Incubation in the United States. National Business Incubation Association, Athens, Ohio. 2002.

² Dennis Romero, A New Take on Incubators.
<http://www.entrepreneur.com/magazine/entrepreneur/2009/may/201228.html>.

of incubators is claimed to be “To increase the chances of an incubate firm surviving its formative years”³ and to “nurture the development of entrepreneurial companies, helping them survive and grow during the start-up period, when they are most vulnerable...Incubator graduates create jobs, revitalizing neighborhoods and commercialize new technologies, thus strengthening local, regional and even national economies.”⁴

The International Labour Organization argues that small business incubators are innovative instruments that are increasingly considered to be of prime importance in developing and promoting competitive small firms. SMEs are an integral part of the economy and an important source of components and materials for the larger industries. They represent 99.7 percent of all employer firms; Employ half of all private sector employees; and have generated 60 to 80 percent of net new jobs over the past decade in USA. Statistics from other countries are similar to USA. However, SMEs’ survival rate is very low. One-third of new small businesses don’t exist after two years, and 56 percent don’t exist after four years.⁵ Their Survival rate is not more than 20%. Small business incubators are a strategy intended to assist small businesses to be successful. An incubation programme’s main goal is to produce successful graduates: businesses that are financially viable and free-standing when they leave the incubator, usually within two to three years. Thirty percent of incubator clients typically graduate each year. 87 percent of incubator graduates were still in business.⁶ Thus, a business incubator is an economic development tool designed to accelerate the growth and success of entrepreneurial companies through an array of business support resources and services. According to the survey of NBIA, USA, Incubators’ goals include: Create local jobs (84%); Foster entrepreneurial climate (77%); Commercialize technology (54%); Diversify local economies (48%); Build/accelerate local industry growth (48%); Retain firms in community (45%); Encourage minority or women entrepreneurship (30%); Generate revenue (28%); Identify potential spin-ins or spin-outs (25%); Generate benefits for sponsors (19%); Revitalize distressed neighborhood (18%); Move people from welfare to work (8%).

3 Business Incubators in China: Development and Experience

3.1 Present Situation and Development

China’s first technology business incubator was born 22 years ago. In 1987 the first technology business incubator was established in Wu Han city named Dong Hu Business Pioneers Center. China has established a fairly comprehensive business incubator system, with 548 incubators so far, ranked second highest number in the world after the United States. In the over 22 years’ development history of China’s incubators, China’s Ministry of Science and Technology (MOST) has played extremely important roles of guidance, organization and promotion. The Chinese business incubation program is under the guidance and coordination of a special institution—Torch Program Office of MOST, which is unique in the world. The Torch Center plays major roles in two aspects: first, policy guidance; second, fund support. According to the statistics from the Torch Center of China’s Ministry of Science and Technology, by the end of 2005, The size area of incubator was 19699 thousand square meters, the number of enterprises in incubation reached to 40639, These two numbers lay the first in the world. Tenants in incubators their totally income reached to 213.32 billion. Totally income of graduated enterprises reached to 143.33 billion. Incubator has made a great contribution to the development and cultivation of small and medium-sized enterprises (SMEs), enhanced their ability to face market challenges. Much attention has been paid to the impressive output of Chinese incubators in production, patent and job creation. During the tenth five-years plan course, tenants in incubators applied for 17225 patents, Graduated enterprises accumulated to 15931. In 2006, Totally funds in 548 incubators reached to

³ Hackett, Sean M. with David M. Dilts. “A Systematic Review of Business Incubation Research,” Journal of Technology Transfer, Vol. 29, 2004, page 60.

⁴ National Business Incubation Association, “Business Incubation FAQ.” April 2007.

⁵ Small Business Administration, Office of Advocacy: Frequently Asked Question. June 2006.

⁶ United States of America, Department of Commerce, Impact of Incubator Investments (1997).

20.02 billion yuan.⁷

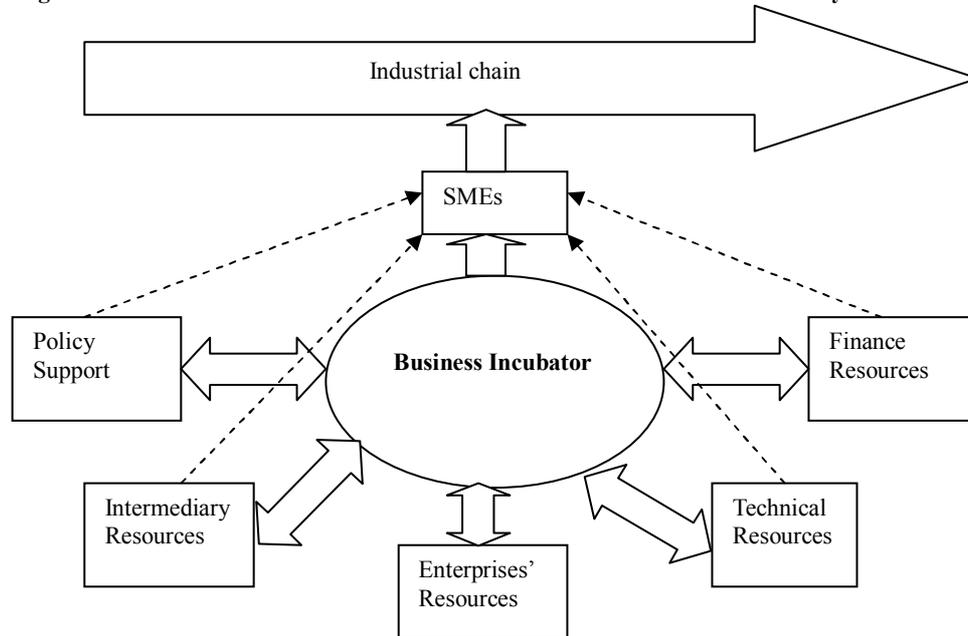
3.2 Kinds of Incubator in China

The types of China's technology business incubators include comprehensive incubators namely high-tech innovation centers, pioneering parks for overseas Chinese scholars, high-tech parks in universities, software parks.

3.3 The Core Function of Incubator in Technical Innovation Incubation System in China

Figure.1 illustrates the core function of incubator in technical innovation incubation system in China, it also reveal the importance of cooperation between institutions and organizations to support SMEs. With the 22 years development, the commercialization rate of China's technology fruits has been dramatically increased, from national average 25%~30% to over 80%. The survival rate of technology enterprises also increased significantly, after the incubation and nurturing in incubators, the survival rate of small start-ups has generally exceeded 80%.

Figure .1 The Core Function of Incubator in Technical Innovation Incubation System in China



Source: Development Report of Technology Business Incubators in China

3.4 Characteristics of Technology Business Incubator in China

3.4.1 Sponsored and supported by governments initially, most incubators are quasi government institutions in early stage;

3.4.2 Rapid expansion in number and construction scale;

3.4.3 Gradual diversification of investment entities;

3.4.4 With nurturing high-tech enterprises as core mission;

3.4.5 Incubators within high-tech zones developed better than those located in other places;

3.4.6 Attach great importance to value-added services.

3.5 Main Achievements

⁷ Report about china's hi-tech enterprise incubator for it's twenty years birthday
<http://chineseincubator.bokee.com/viewdiary.180327063.html>

- 3.5.1 Creation of employment opportunities;
- 3.5.2 Increasing the commercialization of science and technological fruits;
- 3.5.3 Promoting the development of high and new technology industrialization, leading to the development of emerging industries in many cities;
- 3.5.4 Creating and promoting active entrepreneurial culture and environment, attracting a great number of high-tech talents especially overseas Chinese scholars to set up new businesses;
- 3.5.5 Promoting international cooperation;
- 3.5.6 Promoting venture capital development in China.

4 Future Development

According to the Eleventh Five Years Plan of China's Technology Business Incubators, by the end of 2010, the number of incubators in China will increase from 500 to 1000. Total area will reach to 25,000 thousand square meters. Harboring more than 50,000 companies and helping create over one million job opportunities.

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