

## ***THE ROLE OF UKRAINIAN UNIVERSITIES IN CREATING TECHNOLOGY INCUBATORS***

**Gardner G. GA.,  
State University of New York, USA**

*У даній статті розглядаються можливості для економічного зростання та бізнес розвитку заснованих на університеті інкубаторів. Представлені університети є чудовими джерелами допомоги технічного і бізнес управління для стартового бізнесу в інкубаторі та національної політики, а також призначені для підтримки створення інкубаторів в Українських університетах.*

*This paper examines the opportunities for economic growth and business development from university-based incubators. Universities are shown to be excellent sources of technical and business management assistance for start-up businesses in the incubator and national policies are recommended to support the establishment of incubators at Ukrainian universities.*

In the United States, universities are often the central force in creating incubators for new high-technology businesses. This paper examines the possibility that universities in Ukraine could play a similar role, helping to stimulate economic development in Ukraine. It examines the likely steps needed to launch such a university-based incubator in Ukraine.

### **Universities and Business Incubators**

Incubators are institutions that are designed to help small businesses grow and become successful. Named after the incubators that keep young chickens warm before and shortly after they are hatched, business incubators provide a variety of support services for new start-up businesses. These may include low-cost physical space and Information technology support, as well as opportunities for training, mentoring and consulting, and access to investment capital. In the US, the most successful incubators have been oriented toward the creation of information technology and other technology-intensive businesses [1].

The first US incubator was established in 1959 in Batavia, New York. Its first client was a chicken hatchery, giving the facility the informal name of “the incubator”. The name was appropriate and remains in wide use today, although some incubators use other names, including “business accelerator” or “industrial development center.” The first university-based incubator was established in Philadelphia, Pennsylvania in 1964 and the first incubator focused on the attraction and development of foreign businesses began in the early 1990s in New York City. Since then, over 4000 incubators have developed world-wide, including centers with concentrations in many different industries, technologies, and even centers for the arts and not-for profit agencies [2]. Technology incubators expanded rapidly during the dot.com boom in the US, but many of those have since ceased operations.

It is increasingly popular for nations to establish international incubators, where foreign businesses are encouraged to locate – or where domestic companies can gain easier access to specific foreign markets. Along with technical consulting and support, these international incubators provide services for translation and consulting in global markets. [3]

The first incubator in Russia was established in 2006 [4] and Ukraine has successful examples of university-based incubators in Kyiv and Kharkiv, through Loyola University of the United States and the USAID organization [5].

Frequently, incubators are located at universities. The university not only provides a stream of new technologies and business ideas, but the faculty in areas of business, technology, and economics are available as consultants to the start-up businesses. It is often relatively easy for universities to extend their existing IT networks to support start-up businesses on the campus.

Globally, a university connection appears most important for businesses based in the information technology industry [6].

Research among US university-based incubators showed that start-up businesses in university incubators averaged 66% higher productivity than non-university-based incubators. University-sponsored start-ups reported 21% higher annual revenues, 32% more recent bank loans, and 23% more recent capital investment [7]. The value of a university in sponsoring high-technology start-up businesses appears to be clear, and is generally consistent among many nations [8].

In a recent survey of rural areas of the United States, business incubators were the only standard economic development tool that produced increased employment and appeared as one of the most promising tools to generate new businesses [9]. Incubators work as tools for economic development and universities can play a major role in developing these incubators.

The most significant supports offered by incubators to start-ups, especially in the area of high-technology, are services such as consulting and the chance to share experience and ideas with other entrepreneurs. Universities are uniquely suited to providing these services, as partners with high-technology start-ups [10]. Two of the most famous university/industry technology partnerships in the world are Silicon Valley in California (based around Stanford University) and Route 128 in Boston (based around the Massachusetts Institute of Technology.) Both of these regions experienced an enormous explosion of high-technology start-ups and new economic development as a result of ideas and support from the central universities.

#### **University-Based Technology Incubators in Ukraine**

Ukraine is a difficult place to do business and the environment is especially hard on small start-up businesses. The existence of a university-based incubator could help overcome some of these challenges and spur the creation of new technology-based enterprises, especially those concentrated in information technologies.

Experience in establishing university-based technology incubators in the United States [7] and Ukraine [4] suggests that certain steps are needed for success: the identification of a “champion” to establish and lead the incubator within the university, access to physical space and IT services, a connection to investment capital, and business training services.

Ukrainian universities typically have most of the elements needed to launch a successful incubator; access to faculty with skills in business and technology who can serve as consultants and trainers for entrepreneurs, an existing IT network that could be extended to support the businesses in the incubator, and reputation and visibility within a community that could help attract potential investors.

While physical space may be difficult for some universities to find, the concept of a “cyber-incubator” where the incubator provides access to the Internet and a pre-existing website to facilitate on-line businesses avoids this issue. Universities establishing a cyber incubator can substitute technological expertise and IT services for physical space. Such a model also supports export/international business models where the university’s ability to provide international consulting and training services, such as translations or language training becomes important.

#### **Conclusion**

Incubators are a proven method of encouraging the creation of new businesses and economic development. They are typically most effective when based at a university where technology and business skills are available.

This suggests that the development of university-based incubators for high-technology start-up companies should be a near-term policy goal for Ukrainian governments interested in expanded economic development. These incubators should also represent a significant opportunity for the investment community, both domestic and international, seeking high-growth opportunities in the Ukrainian market.

***REFERENCES***

1. Tournatzky, L.G. et. al (1996). The art and craft of technology business incubation: best practices, strategies, and tools from more than 50 programs. Research Triangle Park, North Carolina, Southern Technology Council.
2. Leblebici, H. & Shah, N. (July 2004) The birth, transformation and regeneration of business incubators as new organizational forms: Understanding the interplay between organizational history and organizational theory. *Business History*, 46(3), 353 – 380.
3. Heuser, S. (June 19, 2007) Scottish government subsidizes US growth – companies find footing at Cambridge incubator, *The Boston Globe*, Business section, Pg C1.
4. Tatar-Info news agency (May 12, 2006) Russia's first small business incubator opens in Volga republic, *BBC Monitoring Former Soviet Union – Political*, Supplied by BBC Worldwide Monitoring
5. Shelton R. D., & Margenthaler C. R, (June, 1999) The Business Incubator Development (BID) Program in Ukraine, Presented at the Expert Meeting on Best Practice in Business Incubation, UN Economic Commission, Palais des Nations, Geneva, Switzerland,
6. Sun, H., Ni, W., & Leung, J. (June, 2007) Critical success factors for technology incubation: Case study of Hong Kong science and technology parks. *International Journal of Management*, 24(2), pp. 346 – 363.
7. O'Neal, T. (September, 2005) Evolving a successful university-based incubator: Lessons learned from the UCF Technology Incubator, *Engineering Management Journal*, 7(3), 11 – 25.
8. Lee, S. S., & Osteryoung, J. S. (2004) A comparison of critical success factors for effective operations of university business incubators in the US and Korea. *Journal of Small Business Management*, 42(2), 418 – 426.
9. Gardner, G. A. (October, 2005) Strategic Choices for Rural Economic Developers. Institute for Behavioral and Applied Management, Phoenix, Arizona, USA
10. Scott, J. L. (2000). Hatching the equity nest egg: the role of a university incubator in creating successful startup firms. Unpublished doctoral dissertation, University of Washington.