

Growing Asia's Software Industries

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Several governments in Asia have embarked on strategies to develop technology and software parks as a means of stimulating and nurturing the growth of its domestic IT industry. These parks typically go beyond the mere physical co-location of companies, but are also complemented with various support infrastructure and policies. The increasing interest in such incubation strategies raises a natural question – how successful have technology and software parks been?

A study by the Economist Intelligence Unit (EIU) commissioned by the Business Software Alliance takes a closer look at the common attributes of such parks, and identifies some common advantages and drawbacks faced by the parks to the extent that they foster innovation.

Silicon Valley's success in creating a fast-growing export-driven software industry has often been considered the original software park that many have attempted to copy and replicate elsewhere. Since then, a few other places in Israel, Ireland and India have also each made a difference in creating their own successful software industries. However, Asian parks, such as the four studied by the EIU – Cyberjaya in Malaysia, Dalian Software Park in China, Nankang Software Park in Taiwan and Quang Trung Software City in Vietnam – have had varied experiences.

One of the advantages of software parks that the study has identified is that start-up firms benefit from the low rent and tax breaks available at such parks. However, these Asian software parks have had limited successes in becoming innovation hubs that they were envisioned to be. Tenant companies are more inclined to focus on outsourcing or software services, rather than creating new innovative products. Export-focused software services dominate the parks, and such a focus may pose long-term growth issues and increase vulnerability to global economic fluctuations. Part of the reason is the poor levels of intellectual property protection that makes international companies reluctant to locate their core research and development in these countries, thus creating a barrier to innovation and technology transfer.

The EIU report observes that Asian governments can do more to promote venture capital, an essential element in jump-starting software industries. Restrictive practices on company ownership, governance and capital repatriation that is not unusual among Asian countries tend to dissuade investments in the technology sector.

Also of key importance to the software industry is a reliable, fast and cheap communications infrastructure. Historically, many telecommunication operators in Asia are state-owned and state-run. The report recommends that greater liberalization of the telecommunications sector to create a more market-driven environment will be more effective at increasing the penetration and reducing the cost of communications services.

One of the critical findings of the EIU study is that parks do not promote software in the same manner as they did in hardware manufacturing, where Asia has tremendous success over their western counterparts. In the software field, developers need access to dynamic and vibrant environments where ideas, capital and people move quickly. Isolated parks in remote locations away from the commercial areas do not lend themselves as attractive locations for such talents. It is thus more important to create an overall environment in a country with positive factors that encourage innovation, rather than creating physical parks to stimulate the software industry.

The EIU report concludes that creating an attractive investment environment is one of the key enablers that will better facilitate the growth of entrepreneurial firms. The success of Silicon Valley largely leveraged on the easy access to finance. The report also notes that governments are most effective when creating and enforcing a legal and policy framework that prevents anti-competitive behavior and reduces business uncertainties. Promoting a technology-neutral development environment and not dictating standards or specific use of technologies over others will better encourage companies to innovate based on their own strengths and niches.

For many Asian countries, the software industry is not yet a major contributor to the economy. This can change – for instance, India's US\$47.8bn IT-enabled business is growing at 30% annually, and accounts for 5.2% of its GDP. North Asia has also been successful in the technology market in many areas. The rest of Asia can similarly grow successful software industries, but fundamental changes need to be put in place – liberalized telecommunications, better intellectual property protection, more attractive investment environment, and a technology-neutral approach towards government policy.