

Creativity and Innovation in Singapore Economy

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Industrial policy has been one of the main levers used for economic growth and development in Singapore. The most effective form of industrial policy should be flexible, responsive and adaptable to changing conditions and opportunities.

For resource-poor Singapore, leveraging on its location and human capital for growth was the only option. The education and training of its human capital gave Singapore a head start on its neighbours in the post-colonial period. However, with economic integration featuring more strongly in globalisation, this has hastened the dismantling of border barriers, and increasingly economies will rely less on natural resources and more on human capital as a strategic asset for growth and development. This means that the comparative advantage Singapore holds in the area of human capital is likely to diminish as other countries play catch-up. The new global economic paradigm is likely to be knowledge-intensive and businesses will strive for innovation in value creation in order to remain competitive. Innovation will drive new product development and high-tech value creation among other objectives and in the process shape the economic destiny of nations (Goh, 2005).

Moreover, unlike the other newly industrialised economies such as Hong Kong, South Korea and Taiwan, Singapore had emphasised heavily on foreign multinational companies (MNCs) to spearhead its industrialisation drive in the early years of development, and in the process neglected the development of domestic enterprises, especially small and medium-sized enterprises (SMEs). After decades of industrialisation, Singapore's domestic companies continue to play a relative small role as the corporate scene is dominated by the MNCs and government-linked companies, and the city-state faces major challenges to develop and sustain a vibrant domestic economy (Chia, 2005).

In 1988, the SME Master Plan arguably marked the initial coordinated national attempt to upgrade Singapore businesses and promote domestic entrepreneurship. In 2003, the Ministerial Committee on Research and Development (MCRD) concluded that bold reforms were needed to transform Singapore into an R&D-driven innovative knowledge-based economy (Chia, 2005).

Did the initiatives succeed? Nearly a decade later in 2011, when Apple co-founder Steve Wozniak was invited as a motivational speaker to Singapore, he made the observation that a company like Apple could not emerge in societies like Singapore. He added, though many

people were educated with well-paid jobs, “creative elements” in society seem to have disappeared and people are not taught to think for themselves (Mahtani and Holmes, 2011).

Since 2011, has Singapore’s “soil” become more fertile for creativity? In their drive towards productivity, companies in Singapore are focusing on innovation as a key strategy. However, critics argue that Asian societies such as Singapore tend to put up barriers towards adopting a more innovative culture (Miles, 2013). The influence of Confucian teachings, adherence to obedience, respect for authority, hierarchical structures and insistence on conformity would all seem to work against catalysts for innovation. Innovative catalysts include an open culture that encourages the exchange of ideas, individuality and diversity, which surfaces different perspectives. Aversion to and fear of failure is another barrier to innovation. The willingness to take risks is a prerequisite for an innovative culture, but in a merit-based society like Singapore — with the emphasis on meritocracy and strict adherence to promotion based on merit — the workforce will perform to the best of its abilities but is likely to avoid unnecessary risks.

The pressure on Singapore companies to innovate and be creative in order to compete globally is nothing new in comparison to what Switzerland has experienced. Similarly faced with a small domestic market, Swiss companies have to compete globally. In a survey by Deloitte on the manufacturing industry in Switzerland, 50% of the companies surveyed said that they were under greater pressure to innovate (Deloitte Consulting AG, 2013). How does the Swiss economy maintain its lead over other industrialised nations and the rapidly emerging markets?

Respondent companies in the Deloitte survey highlighted that Switzerland’s attraction as a centre of innovation is based on its “dual” vocational training system. This system combines on the job training with academic input from outstanding institutions such as the ETH (Swiss Federal Institute of Technology in Zurich) and its counterpart the EPFL (Swiss Federal Institute of Technology in Lausanne). Switzerland has a high-performing and competitive manufacturing industry, which is a key requirement for innovation. In addition, it has an innovation-friendly and secure investment environment. Other factors such as political stability, good infrastructure and a robust business eco-system also boost Switzerland’s attractiveness and reputation as a centre for innovation.

In Singapore’s case, while companies recognise the benefits of innovation, it could be argued that the necessary structures do not seem to be in place to nurture it. One key area is human capital development. Where do we start to create a greater passion for creative thinking?

One obvious place would be in the education sector. Singapore schools have become role models with consistently good results in international tests but the Ministry of Education wishes to move beyond this and to cultivate creativity through “holistic education” (Lim, 2012). Minister for Education Heng Swee Keat described this process as “less about content knowledge” but “more about how to process information” (Lim, 2012). In addition, he described the challenge to innovate as to, “discern truths from untruths, connect seemingly disparate dots, and create knowledge even as the context changes” (Lim, 2012). It is hoped that this strategy would prepare today’s students for the demands of the next 20 years. It also means that schools in Singapore will be given more leeway but will be under more

pressure to deliver creative ways to teach the syllabus. In order to “connect seemingly disparate dots” to create knowledge, information is central.

In the Global Innovation Index 2014, Singapore came in seventh overall while Switzerland was first. However, in terms of innovation efficiency ratio that measures output index over input index, Singapore was ranked poorly, finishing in the 110th position. Switzerland, on the other hand, remained in the top 10 for both rankings. Evidently, a lot more work has to be done to close this gap in efficiency.

Notwithstanding, even Switzerland is concerned that its innovation and creative culture will be overrun by its competitors because of the following concerns. First, competitors are overtaking Swiss companies and forcing them to be reactive rather than proactive. Second, there is greater internationalisation of R&D catalysed by relocating production abroad and the changed perception of innovation as more than just product innovation (Deloitte Consulting AG, 2013). This shows that no country can afford to rest on its laurels in today's world.

The same Global Innovation Index 2014 also highlighted that global mobility of human capital is assisting the innovation credentials of emerging economies. The index labelled this group of 12 high-performing countries as “innovation learners”. Of these 12 countries, six are in Asia, and they are: China, India, Malaysia, Mongolia, Thailand and Vietnam. These economies have benefited from their respective diasporas where high-performing entrepreneurs have returned home to innovate and create local jobs that contribute to the national competitiveness of their economies. In the same vein, Singapore's increasing efforts to reconnect with its 200,000-odd diaspora is an acknowledgement of their importance to the Singapore economy.

Whatever the means, the future prospects of Singapore in an increasingly globalised world no doubt depend on its ability to enhance its human capital, which would in turn drive creativity and innovation.

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