Innovation system in Hong Kong

Word Count/Expect Reading Time	*1164/6 mins*

Introduction

Hong Kong (HK) is a metropolis and has around 7.41 million population (Census and Statistics Department, 2021), including a considerable number of high-tech companies and talents. In 2017, the HK Government introduced the Hong Kong Smart City Blueprint to build Hong Kong into a world-level smart city. Considering HK's situation, the government use this document to guide the smart city development in the next five years (Office of the Government Chief Information Officer, 2017). Then, in 2020, the second version (Blueprint 2.0) was posted, which aims to make public life easier, so residents can perceive the benefits from the smart city's innovative technology in their daily lives.

In more detail, there are four main goals of the first and second versions:

(a) Making people's lives happier, healthier, smarter and richer.

(b) Maintaining the enterprises to capitalise on HK's business-friendly environment to promote innovation.

(c) Increased digital capacity and technological knowledge of industry, citizens and governments.

(d) Making cities more environmentally friendly, sustainable, resilient and efficient.

So, in this assignment, I will first mention some official policies or documents and then talk about HK's innovation systems and their main players. Finally, I will argue the strengths and weaknesses of the official description and initiatives.

Hong Kong's innovation system

Hong Kong Innovation, Technology and Industry Bureau considered innovation activities can enhance competitiveness and business performance (Hong Kong Innovation and Technology Development Blueprint, 2022). Freeman considered the 'Innovation system' as 'the set of institutions directly concerned with scientific and technical activities' (1991).

Invest Hong Kong (a department of the HK Government responsible for Foreign Direct Investment) has an initiative (called StartmeupHK) that aims at helping start-up founders from overseas to find or expand in Hong Kong. It is considered that HK is Asia's leading startup hub with 8 unicorn companies and a growing number of startups in diverse sectors like fintech, retail tech, IoT, and smart cities (StartmeupHK).

Hong Kong Science Park (HKSTP), which is also a government corporation, wants to enhance the capability of HK's innovation and technology ecosystem through a series of initiatives. On one hand, HKSTP has a well-established network of several technology start-ups and venture capital firms to enable the top start-up companies to interact with each other. In addition, they bridge innovators and various stakeholders by building the city's largest R&D base to transform ideas into viable solutions and providing around 15,000 local job opportunities (Report of the Advisory Committee on Innovation and Technology, n.d., 2017). On the other hand, HKSTP's venture capital focuses on providing venture capital to startups with high growth potential and innovative ideas. It also serves as a communication platform between investors and start-ups, facilitating the flow of capital, expertise, and networks. The capital fund invests money along with investors and venture capitalists, and by supporting startups, it can make private investors put in up to 19 times more money.

As for the individual aspect, the blueprint also mentioned that the smart city plan is human-centered and should be constructed according to the public needs, so both local residents and visitors can benefit from it. Besides, the government should offer 12 years of free primary and secondary education for the local students and encourage them to learn STEM subjects.

Overall, as a regional innovation system, HK has a strong financial and social system in terms of rich institutional infrastructure, supported by nurturing programs, experienced investors, and a friendly startup community, which links the individuals and industries in the limited geographic area, making HK's startup ecosystem thrive (Cooke, p. et al., 1997; Asheim and Isaksen, 2002; Braczyk. et al., 1998).

Therefore, in HK, the government, industries, and universities cooperate with each other, while citizens also play an important role in innovation, showing a good example of the quadruple helix (Etzkowitz, H., Leydesdorff, L., 1995; Committee of the Regions, 2016).

The robustness of HK's innovation system

A strong and robust innovation system should have some key socio-economic features like a good startup culture, a large VC system, and networking environments (Markoff 2006, O'Mara, 2020; Storper et al, 2015; Atkin et al, 2022).

HK performed well in many international rankings which is helpful for attracting companies and talents. First, there are five universities in HK among the global top 100, which is the maximum around the world apart from London (QS World University Rankings, 2023). Meanwhile, its performance in “Technology” ranked first and second worldwide in 2021 and 2022 respectively (the International Institute for Management Development), while performance in “Readiness” ranked first worldwide in the World Talent Ranking (2021). In more detail, the number of startups increased dramatically from 3,184 in 2019 to 4,257 in 2023, including IT software, web/social media, life science, and environment showing a wider diversification and a strong innovation cluster (StartmeupHK, 2023).

Meanwhile, as agglomeration economies can help firms and workers become more productive (Duranton and Puga, 2004), the existence of the cluster can improve HK’s innovation efficiency and help HK attract more enterprises and talents. For example, skilled workers can share physical, social, and economic infrastructure in a well-equipped industrial park, which encourages more interaction and finally causes more innovation. More specifically, the skilled workers can easily find cafes, bars, or even

walkable streetscapes in the community, so they can talk to each other and finally spur new ideas and higher patenting (Roche, 2020; Andrews, 2019). Besides, an industrial cluster with related or complementary firms fosters more cooperation and knowledge spillovers across the industry, resulting in more innovative activity and growth (Marshall, A. 1890; Atkin et al, 2022).

However, based on Endogenous growth theory, HK's innovation system also shows some limitations. For instance, this theory overemphasizes the fact that internal innovation directly promotes growth and its causality, but it ignores the cyclical pattern of innovation and economic development (Chen, P., 2015).

HK's policymakers believe that the more skilled workers and firms they attract, the more innovation and growth they will obtain. However, policies and institutions should evolve together at different stages of the technology lifecycle (Chen, P., 2015). As a beginner in developing technology industries, HK is currently unable to support such a considerable number of technical talents and hi-tech companies. Meanwhile, in the Chief Executive's 2023 Policy Address, the chief executive Lee Ka-chiu shouted the radical slogan of 'snatching talents and retaining them', resulting in around 160,000 people getting Hong Kong visas through different policies (HKSAR Government Press Releases, 2023). However, growth is limited by market size and ecological resources (Smith A., 1776.; Malthus T. R., 1798). This radical policy of snatching talents ignores the limited nature of the market and resources, as well as the present situation of extremely high population density in HK.

Conclusion

Overall, although HK's innovation system is facing some challenges, HK has had essential elements for building a regional innovation system. In the future, HK should embrace innovation to develop a smart Hong Kong, fostering a thriving economy and a high-quality living environment, as well as maintain a rational relationship and interaction between the citizens, universities, industry and government.

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