

Executive Summary

The number of technology business start-ups has recently seen an upsurge in Hong Kong as the start-up ecosystem has experienced continuous growth. According to a recent survey by Invest Hong Kong,¹ there were 1,912 start-up founders in 2015, a 71% increase from 2014, while the number of start-ups had risen to 1,558, a 46% increase from the previous year. Technology start-ups such as information technology businesses and e-commerce businesses in particular are very common.

However, Hong Kong ranked 11th in *The Global Innovation Index 2015*,² and has fallen for two consecutive years. The knowledge and technology outputs sub-index of Hong Kong ranked as low as 31st, indicating that the innovation performance of Hong Kong is relatively inferior. Hong Kong is also inactive in the implementation and commercialisation of research and development (R&D) output into products with commercial value. Business expenditure on technology and innovation (TI) activities has gone backwards in recent years, from HK\$18.1 billion in 2004 to HK\$16.1 billion in 2013.³

Though technology start-ups continue to appear, Hong Kong's innovation achievement remains insignificant. It is therefore questionable whether the conditions are sufficiently favourable for the development of technology start-ups. In the midst of intense global competition, we need to take a close look at the conditions for technology start-ups in order to explore business and employment opportunities and to improve the overall competitiveness of Hong Kong.

Therefore, this Study looks at ways to enhance the conditions for technology start-ups. On the one hand, it examines the conditions for starting a business in Hong Kong. On the other, it tries to understand the problems in and obstacles to the development of technology start-ups by

¹ Invest HK. (2015). "Hong Kong: A promising startup ecosystem." Retrieved from <http://www.startmeup.hk>.

² Cornell University, INSEAD, and WIPO. (2015). *The global innovation index 2015: Effective innovation policies for development*. Fontainebleau, Ithaca, and Geneva.

³ Census and Statistics Department. (2015). *Hong Kong as a knowledge-based economy – A statistical perspective 2015*.

looking at the difficulties encountered by entrepreneurs.

This Study used an online survey and case interviews to understand the difficulties encountered by entrepreneurs and their views on starting technology businesses. In addition, experts and scholars were interviewed and gave their assessment of the conditions for technology start-ups as well as the relevant policy impact in Hong Kong.

Based on the findings of this Study, *Youth I.D.E.A.S.* puts forward five recommendations which focus on strengthening the ecosystem of the Hong Kong technology industry and enhancing entrepreneurship education.

Key Findings

1. Entrepreneurs start technology businesses in response to market demand.

An online survey conducted from October to November 2015 yielded 217 responses from start-up entrepreneurs with an average age of 30.42. Their main reasons for starting a technology business were market demand (64.3%) and the capability of technology to solve current problems or to expand business (48.0%). Support from the government (8.2%) and the availability of relevant infrastructure and facilities (7.7%) were not major motivators. In other words, they made use of technology to start a business because they saw a demand in the market, not because they were attracted by relevant support and facilities available.

2. Entrepreneurs think it is difficult to start a technology business in Hong Kong today. There is a lack of both applied technology and a conducive business environment while government policy as a favourable factor is rated the lowest.

Respondents gave the start-up environment of Hong Kong an average score of 4.73 on a 1-10 scale. They also thought that it is rather difficult to start a technology business in Hong Kong, rating difficulty 6.59 out of 10 on average.

They thought that there are insufficient factors favourable to starting a technology business. Regarding the applied technology environment, they gave average ratings of only 4.86, 5.00, 5.08 and 5.31 for talent supply, innovation culture, technical support and research standards respectively. Regarding the business environment, they gave average ratings of 4.86, 4.88, 5.11 and 5.33 for office supply, investors' attitude, loan financing and business mentorship respectively. The score for government policy support was the lowest at 4.29. Only business regulations (6.84) and market demand (6.07) were considered relatively favourable.

3. Innovative ideas and the quality of the product itself are considered key to success. Technology businesses without a high-quality back-end service are easily eliminated in the market.

Most respondents thought that the main condition for a successful technology start-up was innovative ideas (48.4%), which concerns the product itself, followed by social network (42.4%) and understanding of the market (37.3%), which concern the entrepreneur's ability to do business.

The situation of the cases also indicated that they were generally doing cross-industry business in information technology and traditional industries. Therefore, business still relies on the quality of traditional back-end service. There is a risk of being replaced by other competitors if the nature of one's business is solely the promotion of the flow of market information without a high-quality back-end service.

4. Since the Hong Kong market is limited in size, nearly half of the respondents are planning to start businesses in other regions. Two-thirds of them target the Mainland. But they worry that they may encounter problems because they are unfamiliar with the local regulations and markets.

The survey shows that the main difficulty of technology start-ups in Hong Kong is considered to be the limited size of the local market

(21.7%). In view of this, nearly half (49.8%) of the respondents were planning to start businesses in other regions; 67.6% targeted the Mainland, where Shenzhen (60.2%) was the most popular choice. But they worried about problems that may arise because they were unfamiliar with other regions. They lacked a social network (58.3%), knowledge of local business information and culture (40.7%) and understanding of the local market (35.2%).

Main Discussion

- 1. The resources put into R&D are too limited in Hong Kong. The practical technical knowledge of talents is not up to standard. These factors mean that product technology is not sufficiently advanced, which may weaken business competitiveness.**

Technology businesses need products that meet advanced technology standards in order to raise the production threshold and maintain competitiveness. However, investment in R&D only amounted to 0.73% of the Gross Domestic Product (GDP). Moreover, technological innovation, which turns R&D outputs into products with commercial value, was not active in the business sector.⁴ Most interviewees in this Study indicated that their products had no obvious technological advantage and that the practical knowledge of technical talents had yet to meet their business needs. This means that product technology is not sufficiently advanced, which may weaken their business competitiveness.

- 2. Entrepreneurs are unable to equip themselves with the knowledge necessary to starting a business at an early stage. They are unable to make good assessments of product quality and market demand in order to improve their business models and increase their chances of success.**

Innovative ideas, product quality and the business ability of the entrepreneur were considered key to success by the young respondents.

⁴ Census and Statistics Department. (2015). *Hong Kong as a knowledge-based economy: A statistical perspective 2015 edition*.

However, it is rare that entrepreneurs are equipped with a good understanding of how to start a business at an early stage. Some even lack basic business knowledge and only learn by trial and error. If entrepreneurs can acquire start-up knowledge systematically beforehand or at an early stage of their business' development, their chances of success would certainly be improved.

- 3. Investors' attitudes towards technology start-ups in Hong Kong are not positive at present due to their lack of interest in businesses with little potential to expand outside of Hong Kong. Besides which, there is little merger and acquisition activity, so that there is no effective exit strategy for invested funds, which may further reduce the desire to invest.**

Many entrepreneurs hope to find suitable investors in order to strengthen their businesses. But investors' attitudes towards technology start-ups in Hong Kong are not positive. Since technology start-ups are very high-risk, venture investors only look to those with the potential to offer at least a tenfold return. They are not interested in businesses that target only the Hong Kong market. Since there are few mergers and acquisitions at present, there is no effective exit strategy for invested funds, which may further reduce investors' desire.

- 4. The Hong Kong market is too small to realise the benefits of the internet economy. Nearly half of the respondents are planning to start a business in other regions, especially on the Mainland. But they hesitate to take action because they are unfamiliar with local regulations and markets.**

Many entrepreneurs thought that the Hong Kong market is too small to realise the benefits of the internet economy. Nearly half of the respondents were planning to expand to other regions. Two-thirds of them were looking at the Mainland. However, the internet environment, the business culture and the social institutions of the Mainland market are very different from those of Hong Kong. They worried that problems would arise because of the unfamiliarity of the local situation in other markets. Some turned their sights to other English- and Chinese-language markets in South East Asia, such as

Taiwan, Singapore and Malaysia.

5. **Applied technology culture is not popular in Hong Kong. The electronic transactions system is underdeveloped. Hong Kong also lacks an open data policy. The overall social environment is unfavourable for the growth of technology start-ups.**

Overall, the applied technology culture is unfavourable for the growth of technology start-ups in Hong Kong. The electronic transactions system is relatively underdeveloped and many online transactions are actually conducted offline by bank transfer. This has indirectly obstructed the development of e-commerce. In addition, open data is an important element for the development of the information technology industry, but there is no policy that requires government departments or public utilities to release their data at present. This is an unfavourable factor hindering the development of information technology businesses.

Recommendations

This Study offers the following recommendations based on the above findings and discussions:

1. **The government should introduce world-class leading technology enterprises to set up product R&D centres in Hong Kong, which would strengthen the ecosystem of the technology industry and thus drive the development of the industry chain.**
2. **Strengthening entrepreneurship education:**
 - (a) **The government should rebate a portion of the tuition fees for entrepreneurship courses as venture capital in order to encourage potential entrepreneurs to take such courses before they start their businesses. The rebate could be made with a fixed amount to compensate for the expenses necessary to start a business.**
 - (b) **The government and/or relevant public bodies should actively**

introduce high-quality business incubators and accelerators from all over the world (including the Mainland) so as to open up more training opportunities for Hong Kong entrepreneurs.

- (c) University technology and engineering departments should be in closer contact with the industrial sector and strengthen the practical knowledge offered by programmes so as to raise the level of their graduates.**
- 3. The government should consider setting up a platform for start-ups' small-scale public fundraising activities in order to solve the problem of lack of resources.**
 - 4. The government should formulate policy to open up public data and enhance the delivery of electronic public services in order to nurture a culture of applying technology in daily life.**
 - 5. The authorities should facilitate the development of peer-to-peer electronic payment systems in order to reduce the costs of electronic transactions and to drive the development of e-commerce and online money flows.**