



Transforming Hong Kong Through Entrepreneurship

Third Edition



Contents

Foreword	2
About the study	3
Executive summary	4
<hr/>	
Part 1: The role of Hong Kong start-ups in the post-pandemic business environment	6
Start-ups' role in innovation during the pandemic	6
Refocusing on purpose	9
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Part 2: Opportunities to further enable access to funding and support for Hong Kong start-ups	12
The resilience of Hong Kong's venture capital landscape	12
Access to government funding and support	14
Prioritising innovation and technology sectors	16
Assisting growth-stage start-ups with cross-border expansion	19
Building successful start-up-corporate partnerships	20
<hr/>	
Part 3: Fostering an entrepreneurial mindset and innovation culture in Hong Kong	22
Encouraging young people to choose entrepreneurship as a career path	22
Providing viable career paths for STEAM graduates	24
<hr/>	
Suggestions to improve Hong Kong's entrepreneur landscape	26
About us	30
Contact us	30
Acknowledgements	33



Foreword

Since we published our *Transforming Hong Kong Through Entrepreneurship* second edition study in 2019, the world has experienced unprecedented disruption brought by the COVID-19 pandemic. Heightened volatility, increased economic uncertainty, and new risks have resulted in a complex business environment for companies. Firms have had to grapple with workplace shutdowns, supply chain challenges and changing customer demands and preferences. Meanwhile, consumer confidence has been hit by rising unemployment and increased financial constraints. This 'new normal' has forced organisations to change the way they operate as they adjust to market realities and changes in consumer behaviour.

Amid this challenging environment, our third edition study looks at the resilience of Hong Kong's start-ups and their agility to adapt to changing market conditions and develop new products and services to meet evolving customer needs. It also examines how organisations are becoming more purpose-driven and community-oriented as a result of the crisis. As entrepreneurs are inherently purpose-driven by nature, we believe they are well-suited to face these turbulent times and have a role to play to help larger corporates solve a wide range of business problems.

In October 2020, China's National Development and Reform Commission announced a list of new reforms and measures for the Shenzhen Special Economic Zone aimed at accelerating the development of the Guangdong-Hong Kong-Macao Greater Bay Area (GBA) as a technology and innovation hub over the next five years. These initiatives include plans for the construction of a big data centre in the GBA and provide greater autonomy for Shenzhen, Hong Kong's neighbouring city, to conduct pilots in the fields of artificial intelligence, autonomous driving, healthcare and information services.

In light of these developments, our study also addresses how entrepreneurs can contribute to the region's continued development as a technology and innovation hub and how corporates across the GBA can benefit from increased collaboration with the start-up community.

We hope that this report provides you with valuable insights and we welcome the opportunity to discuss these findings further.



Cindy Chow

Executive Director
Alibaba Hong Kong Entrepreneurs Fund



Irene Chu


Partner, Head of New Economy and Life Sciences
Hong Kong, KPMG China





About the study

Surveys

134 Hong Kong-based entrepreneurs/start-up executives

 78% founders


 22% non-founder executive

 44% early stage  3% mature stage

 53% growth stage

Top sectors represented:


 32% Technology


 10% E-commerce/retail

 7% Education


 7% Healthcare/Medical


 6% Banking


 4% Professional Services

 4% Entertainment/Tourism

200 Hong Kong-based corporate executives


 55% previously worked in a start-up (35% as founder, 20% as an employee)

 69% C-suite executives (35% CEO; 34% other C-suite);

 87% Department head or above

Top sectors represented:

 16% Professional services  7% Manufacturing

 13% Technology


 8% Banking


 6% Public sector or NGO

866 Hong Kong-based university students

 92% Undergraduate;

 1% Postgrad (PhD);

 3% Postgrad (Masters);

 4% unspecified


Top sectors represented:


 67% Business/Commerce/Economics majors;

 17% Science/Technology/Engineering;

 13% Arts/Social Sciences/Humanities;

 3% Others

 67% have considered working for a start-up;

 4% actively operate/work for a start-up;

 2% previously founded/worked for a non-active start-up;

 27% have not considered working for a start-up

Surveys conducted by KPMG and Alibaba Entrepreneurs Fund in collaboration with YouGov on June 10 – July 31, 2020

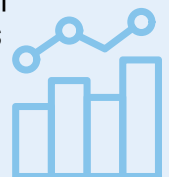
Interviews

In-depth interviews with start-up founders; corporate executives; government officials; academics; and venture capital fund managers and executives



Venture capital landscape analysis

KPMG analysis of venture capital and government funding data from Alibaba Hong Kong Entrepreneurs Fund, Cyberport, Hong Kong Science and Technology Park, Innovation and Technology Bureau of HKSAR Government, and Pitchbook



Executive summary

Hong Kong has continued to make good progress in its journey to becoming a dynamic and vibrant start-up location during the past year, despite the disruption created by the COVID-19 pandemic. This year's *Transforming Hong Kong Through Entrepreneurship* study uncovers how the pandemic has highlighted the valuable role entrepreneurs play in the economy, as well as their agility to respond to changing market conditions and adapt their products and services to meet new needs.

Based on interviews with key leaders in government, industry and academia, as well as a survey of entrepreneurs, corporate executives and students, the 2020 report builds on the two previous studies to assess how Hong Kong's start-up ecosystem is developing, and to identify gaps in support and potential solutions to challenges. The study also provides analysis of venture capital funding obtained by Hong Kong start-ups to uncover trends in this important area.

The study comes at a time when corporates and start-ups alike face unprecedented challenges brought by the COVID-19 pandemic. Hong Kong's GDP declined by 9 percent in the second quarter of 2020, following a fall of 9.1 percent in the first quarter of the year.¹ Conditions are expected to remain challenging as economies worldwide continue to grapple with the fallout of the pandemic, including rising unemployment, extensive travel restrictions and lower consumer spending. Even so, our survey suggests a high degree of resilience among Hong Kong start-ups, with entrepreneurs polled more likely to cite the city's high costs (70 percent) compared to the economic outlook (54 percent) as a key challenge to doing business.

COVID-19 has highlighted the irreplaceable value of Hong Kong entrepreneurs

Our study suggests a significant number of start-ups and corporates have had to adjust their operating models in the post-pandemic economy. However, start-ups appear to be more agile and flexible in adapting their business models in response to changing demand and market needs, enabling them to take advantage of emerging opportunities:

- 34 percent of entrepreneurs have seen increased demand for their products and services amid the pandemic, compared to 19 percent of corporates
- Approximately 50 percent of entrepreneurs polled say their organisations are collaborating to develop new products and services or are assisting the government in its pandemic response

- A majority of entrepreneurs and corporate executives surveyed agree start-ups are instrumental to develop new ideas, keep society dynamic and future-ready, provide opportunities for young people, and create job growth and upward mobility

The pandemic has made purpose top of mind for organisations

The COVID-19 pandemic has highlighted how an impact-driven approach can create value while benefitting society:

- While start-ups have traditionally had a strong sense of purpose, the pandemic is contributing to a mindset shift among corporates, leading to collaboration opportunities for start-ups
- An increased number of social and corporate incubation programs are specifically supporting impact and purpose-focused start-ups
- Encouraging the pursuit of purpose and fostering an entrepreneurial mindset across organisations and society more generally is critical for the continued development of Hong Kong's ecosystem
- More success stories are needed to encourage the acceptance of entrepreneurship as a career path, with less than one-third (32 percent) of students in our survey agreeing that Hong Kong has sufficient entrepreneur role models

Hong Kong's venture capital landscape is maturing, with increased government support also having a positive impact

In the 2019/2020 financial year ending 31 March 2020, the number of venture capital (VC) deals increased to its highest level on record:

- A total of 140 private venture capital deals were conducted with HKD10.89 billion invested during the 12 months, with a median deal size above HKD 10 million for the third consecutive year
- Hong Kong start-ups continued to attract mega deals*, with such deals attracting HKD 3.29 billion in FY 19/20

* For this study, "Mega deals" are defined as deals over USD 200 million (HKD 1.55 billion). In FY 19/20, there were 2 "mega deals" totalling HKD 3.29 billion.

- Late-stage venture capital deals accounted for 61 percent of all private venture capital funding during FY 19/20 – a further sign of maturity in the VC landscape
- Government VC funding, grants, and incubation programmes in FY 19/20 increased roughly 83 percent year-on-year to HKD 8.27 billion, representing 43 percent of total investments and funding received by start-ups in Hong Kong
- A majority of entrepreneurs polled are still relying on informal funding sources. Among those not using government funding, 35 percent mentioned cumbersome application processes as a key barrier, suggesting the need for further streamlining

Fintech continues to dominate start-up scene with other sectors requiring greater support

- 76 percent of entrepreneurs and 61 percent of corporates polled agree Hong Kong is a fintech hub, but less than half believe Hong Kong is an innovation hub for smart city, artificial intelligence, robotics and biotechnology
- Among entrepreneurs surveyed, 82 percent have local operations in Hong Kong, while 31 percent operate within the nine mainland China cities in the GBA and 26 percent operate in Southeast Asia. However, on average, 61 percent of their revenues currently come from the Hong Kong market, compared with 7 percent from mainland China GBA cities, 10 percent from Southeast Asia, 5 percent from other mainland China cities and 17 percent from other global markets
- 41 percent of entrepreneurs polled say they plan to expand into mainland China GBA cities in the next three years, while 40 percent plan to expand in Southeast Asia. To facilitate such expansion, understanding of the local market conditions, regulatory environments and available support are critical to success

Aligning start-up and corporate expectations and outcomes critical to successful partnerships

- 67 percent of corporates surveyed have partnered or collaborated with start-ups
- Both start-ups and corporates see significant benefits to collaborating, with 73 percent of entrepreneurs polled saying it increases their access to a scalable customer base. At the same time, 65 percent of corporates

think collaborating with start-ups helps keep them up to speed with the latest innovation and market developments

- Our study suggests such collaboration has room for improvement, with 57 percent of start-ups polled mentioning corporates' bureaucratic processes and red tape as a primary risk. Meanwhile, 66 percent of corporates mention expectation and outcome misalignment as a risk when working with start-ups.

Viable career paths critical to encourage more students to study STEAM subjects

- Two-thirds of entrepreneurs in our study say inspiring more young people to get interested in science, technology, engineering, arts and mathematics (STEAM) subjects is a key development area
- 44 percent of students surveyed believe entrepreneurship is well-respected career path, while 40 percent believe it is feasible and sustainable
- Long-term policies and strategies to diversify Hong Kong's industries and make them more technology-focused would boost job opportunities for young people and generate more interest for them to pursue STEAM-related career paths

Next steps

To enable Hong Kong to improve its entrepreneurial ecosystem, we have compiled a list of suggested actions for start-ups, corporates, the public sector and students in the following categories:

- Capturing opportunities for start-ups to grow and scale in Asia-Pacific
- Fully optimising Hong Kong's technology transfer ecosystem
- Facilitating meaningful collaboration between start-ups, corporates and Government
- Implementing innovative policies that further support the start-up landscape

The role of Hong Kong start-ups in the post-pandemic business environment

The COVID-19 pandemic has highlighted the irreplaceable value of Hong Kong's entrepreneurs

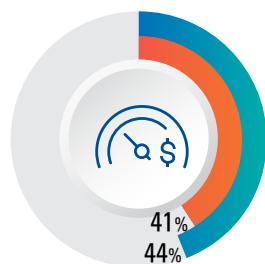
Our survey findings suggest that a significant number of both start-ups and corporates have had to adjust their operating models since the onset of the pandemic. The survey found that start-ups are nearly twice as likely as corporates to have seen increased demand for their products and services as a result of COVID-19, with 34 percent of start-ups reporting a rise compared with 19 percent of corporates (see Figure 1). Start-ups are also less likely to have had to scale back their operations or put plans on hold, at 29 percent compared with 40 percent of corporates. In addition, nearly half (46 percent) of start-ups are either collaborating to develop new products or services as a result of the pandemic or are assisting the government in its response to it.

Start-ups are also more likely than larger corporates to be entering new markets during the pandemic, with nearly half (49 percent) of start-ups focused on regional or global expansion, compared with a third (33 percent) of corporates. At the same time, two-thirds of start-ups (66 percent) are focusing on R&D to drive product or service innovation, compared to 44 percent of corporates surveyed. While the size of larger corporates likely means they have had to focus more on improving their remote working capabilities, these findings suggest that start-ups' agility is enabling them to quickly adapt to rapidly changing market and consumer demand.

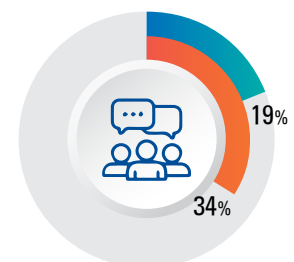
Figure 1: How entrepreneurs and corporates have adapted to new realities during the COVID-19 pandemic

Percentage of respondents who agree with the following statements

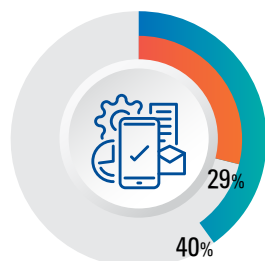
My business has had to re-calibrate its operating model



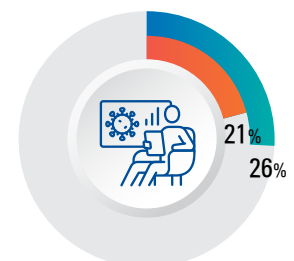
My business has had to respond to an increased demand for products/services



My business has had to scale back its operations or put plans on hold



COVID-19 has not had a significant impact on my company's business model or operations



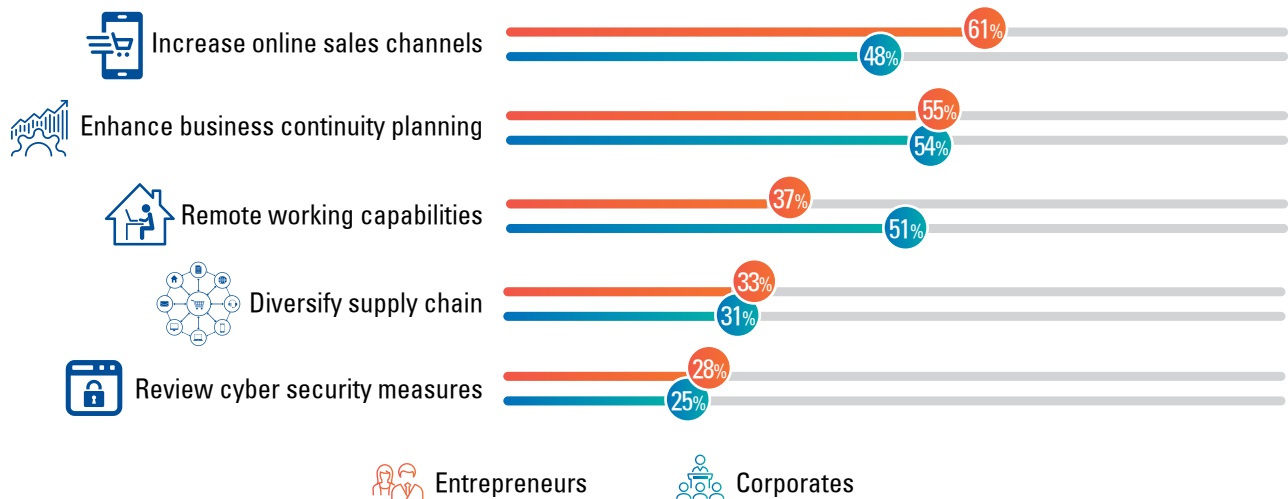
 Entrepreneurs

 Corporates

Source: KPMG survey analysis

Figure 2: Top digital transformation priorities for entrepreneurs and corporates in the current environment

Percentage of respondents who listed the below as top three priorities



Source: KPMG survey analysis
Respondents could select up to three priorities

Start-ups' agility in the current business climate is also reflected in how they are prioritising the development of new digital capabilities. More than six out of 10 (61 percent) start-ups surveyed are focusing on increasing their online sales channels, compared with 48 percent of corporates (see Figure 2). This finding is in line with KPMG's *Consumers and the new reality, COVID-19 pulse study Wave 5 update* in August 2020, which found that customers' heightened concerns about personal safety were creating a need for organisations to offer improved in-home experiences.²

Start-ups' agility has helped them respond to market changes and contribute to Hong Kong's pandemic response

The agility and responsiveness of Hong Kong start-ups amid the Covid-19 crisis has well positioned them to capture market opportunities while at the same time making a positive contribution to the city's pandemic control efforts. In general, corporates are not adjusting as quickly as start-ups, although there are still examples of corporates that have put measures in place to help their local communities during the pandemic.

One example of how start-ups are responding to the pandemic is logistics platform Pickup, which has adapted its delivery service to collect COVID-19 test samples and

deliver them to laboratories. Leveraging its experience in mobilising "foot soldiers" to provide last-mile delivery, Pickup quickly assembled a professional team to offer door-to-door specimen collection service for COVID-19 testing. It also implemented a strict training regimen to ensure delivery agents follow the Department of Health's safety guidelines on sample handling and disinfecting surfaces to help prevent the spread of the virus during deliveries. It has also taken on a consultancy role to help small firms in Hong Kong, Singapore and Malaysia that use its delivery service increase their online sales during the pandemic.

Genetics and diagnostics health start-up Prenetics has played an instrumental role in working with the HKSAR Government in community testing for high-risk clusters. To date it has performed over 400,000 COVID-19 tests in Hong Kong and the United Kingdom. The company recently acquired Oxsed, a spinoff company from Oxford University which developed a rapid COVID-19 test that produces results in 30 minutes. Another example is online retailer HKTVmall, which launched a takeaway app with a low commission rate of 2 percent to help restaurants adapt to the disruptions they face. While not a start-up, HKTVmall still places a high emphasis on innovation and incorporating technology into its business model.



Roland Yau
Managing Partner,
CoCoon Ignite Ventures

The COVID-19 pandemic has contributed to the narrative of why diversification is needed and why start-ups are needed.



Corporates have also responded to the situation, with real estate developer New World Development Company creating its own face mask production lines to produce 7 million face masks a month. It has also partnered with 17 NGOs to distribute free face masks through vending machines at 37 centres across Hong Kong to 40,000 beneficiaries, with a total of more than 2 million masks and 10,000 protective kits distributed to low income families since February.³ Meanwhile, the government-funded Hong Kong Research Institute of Textiles and Apparel developed the reusable facemask CUMask+, which the government has distributed to all households in Hong Kong free of charge.⁴

While start-ups and corporates have responded differently to the disruption from COVID-19, both exhibited adaptability in times of crisis. Start-ups not only identified needs created by changed consumer behaviour and the impact of COVID-19, but were also agile enough to adapt to seize the opportunity. The speed with which they were able to change, and their willingness to partner with and assist other organisations provide important lessons. COVID-19 has also highlighted corporates' ability to respond to the needs of their communities, as well as to consider their responsibilities to be fair employers and fair businesses.

Innovative responses to the Covid-19 pandemic in Hong Kong



Pickupp
Logistics start-up

Adapted its delivery service to pick up and deliver COVID-19 test samples to laboratories, training employees in the required health and safety measures



Prenetics
Biotech start-up

Created affordable COVID-19 testing kit to assist with mass testing and collaborating with airline Cathay Pacific to develop digital health passport



HKTVmall
Online retailer

Developed low-commission food delivery app to support local restaurants



**Hong Kong
Research Institute
of Textiles and
Apparel (HKRITA)**
*Government-funded
research institute*

Developed the CuMask+ reusable face mask, which was distributed by the government for free to Hong Kong residents



**New World
Development**
Real estate developer

Partnered with NGOs to produce and distribute face masks at vending machines located in 18 Hong Kong city districts

Sources: Pickupp, Prenetics, HKTVmall, Hong Kong Innovation and Technology Bureau, New World Development Company Ltd

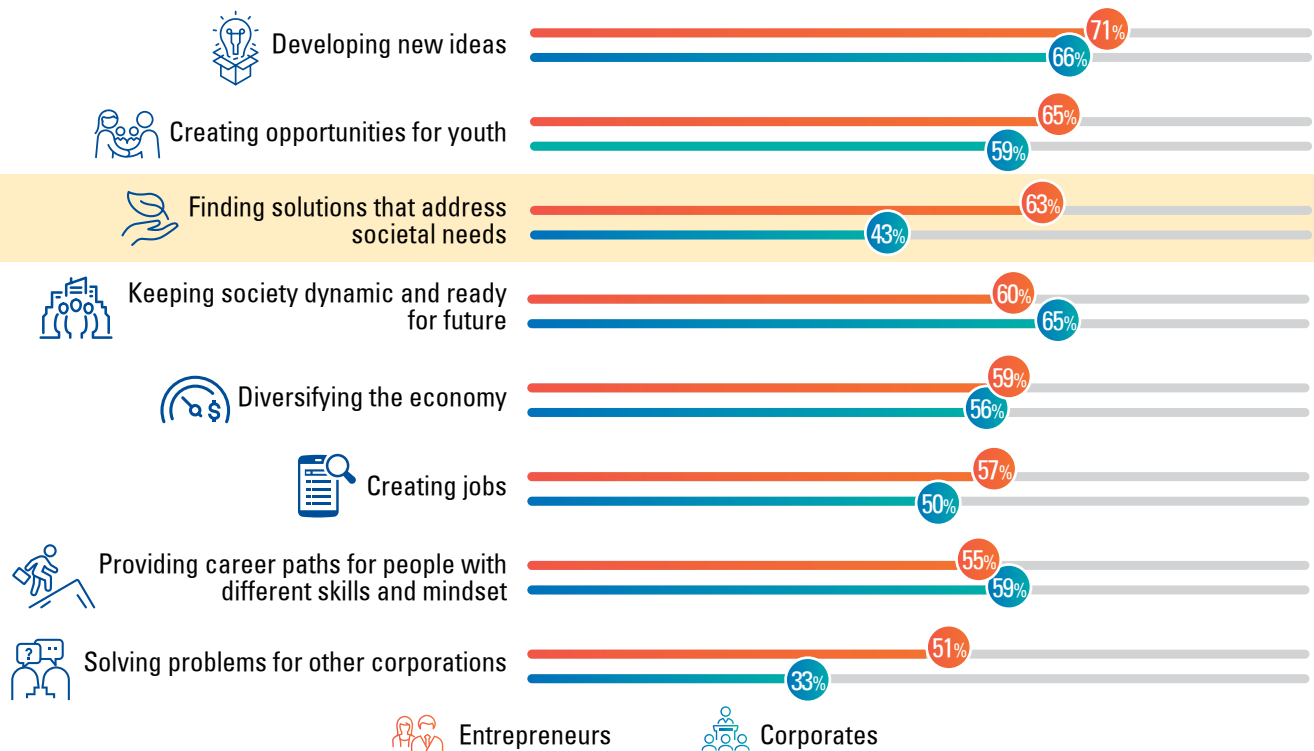
COVID-19 has made purpose top of mind for organisations

The COVID-19 pandemic has further increased Hong Kong start-ups' focus on how purpose and an impact-driven approach can unlock business potential while also benefitting society. At the same time, the pandemic is also contributing to a shift in corporate mindset as large corporations pay more attention to purpose and look to collaborate with other organisations to do work that can make a positive impact on the community.

Among entrepreneurs we polled, purpose already plays a key part in how start-ups define themselves, with nearly two-thirds (63 percent) of respondents considering the role of their business to be finding solutions that address societal needs (see Figure 3).

Figure 3: Views on the role start-ups play in society

Percentage of respondents who mentioned start-ups play a major role in the following areas



Source: KPMG survey analysis
 Respondents could select up to three priorities

The central role purpose plays in many start-ups is reflected in the presence of incubators and venture capital funds that specifically support social enterprises in Hong Kong's ecosystem.

One such organisation, Impact Incubator, supports social innovation projects that aim to find solutions to poverty and social exclusion, providing them with incubation support and connecting them with resources. Between 2015 and early 2020 it supported more than 100 social innovation projects that targeted more than 22,000 beneficiaries. It also acts as an intermediary for the

Government's Social Innovation and Entrepreneurship Development Fund, and has so far facilitated around HKD 100 million of grant funding. Highlighting the potential for social enterprises, one-third of the start-ups that have received funding with Impact Incubator's help have been able to scale and 82 percent can now sustain their operations.

Another example is CoCoon Ignite Ventures, an incubator and early-stage VC investor. CoCoon has three core aims, namely building an entrepreneur community, educating young people to help them gain a better understanding

of entrepreneurship, and investing in early stage start-ups that focus on new economy businesses, such as those transitioning to non-asset-based communities and marketplaces or start-ups that improve urban life. It considers a key part of its work to be assisting in job creation through supporting start-ups, as well as helping to reskill and upskill the existing workforce to drive upward mobility. Although it focuses on social impact, it operates as a commercial entity which allows it to empathise and be better aligned with the start-ups in which it invests.

Measuring the impact of social ventures

With the proliferation of social enterprises in Hong Kong, demonstrating impact to investors is increasingly important, but measuring results is not always straightforward. Social Ventures Hong Kong, which incubates and invests in social start-ups, has created its own matrix for assessing impact, measuring it according to how innovative a solution is, how much demand there is for it, how well it works with other partners and aligns with the broader ecosystem, and whether it has good governance and a sustainable business model. It also looks at growth in terms of being at the cutting edge of innovation and having the breadth to help more people, rather than scaling geographically.

Pursuit of purpose can lead to collaboration opportunities

In addition to start-ups, there is also a growing imperative for corporates to become more purpose-driven. KPMG's 2020 *CEO Outlook: COVID-19 Special Edition* survey found that most CEOs considered the primary objective of their organisation to have shifted from purely generating profit to also considering their purpose in society. CEOs also expressed a willingness to personally lead the way in tackling society's major challenges.⁵

At the same time, as a result of the pandemic, consumers are increasingly looking for organisations that contribute to society, and they are seemingly prepared to pay more in order to support their local community.⁶ This trend is likely to lead to a preference for local suppliers, and could favour start-ups who have a local, community-orientated brand story, over global corporations.

These factors are contributing to a growing awareness among corporates that purpose needs to be part of their business model, and many are looking to partner with local start-ups, who are often better placed to understand what a community needs, in order to achieve this aim. A strong focus on purpose can also benefit large corporates' recruitment efforts, as younger workers tend to place more importance on how organisations contribute to society when selecting an employer.



Lehui Liang
Head of Purpose Capital,
Social Ventures Hong Kong

We are seeing a lot of corporates starting to think about purpose in the current environment. More and more of them are seeing community solutions as the way to go.





Opportunities to further enable access to funding and support for Hong Kong start-ups

Hong Kong's venture capital landscape is maturing, with median deal size and late-stage venture capital investment rising

As Hong Kong's start-up ecosystem continues to expand, access to funding is also improving. Start-ups are benefitting from this proximity to investors, with 680 total deals, including 140 private VC deals and 540 grants, incubation funding, and government VC deals, agreed in the 2019/20 financial year,⁷ the highest number for the city on record.⁸ Approximately HKD 19.16 billion was invested or allocated to Hong Kong-based start-ups during the 12 months, roughly equivalent to the HKD 19.96 billion allocated in 2018/19, despite the disruptions caused by the COVID-19 pandemic. A significant increase in government funding in FY 19/20, particularly in government incubation programmes, has contributed to this trend (please see Figure 4 on next page).

Median deal size for private VC deals also remained above the HKD 10 million-mark in FY 19/20 for the third consecutive year at HKD 16.1 million – significantly above the median investment of between HKD 1 million and HKD 4 million recorded each year between FY 13/14 and FY 16/17 (see Figure 5 on next page).

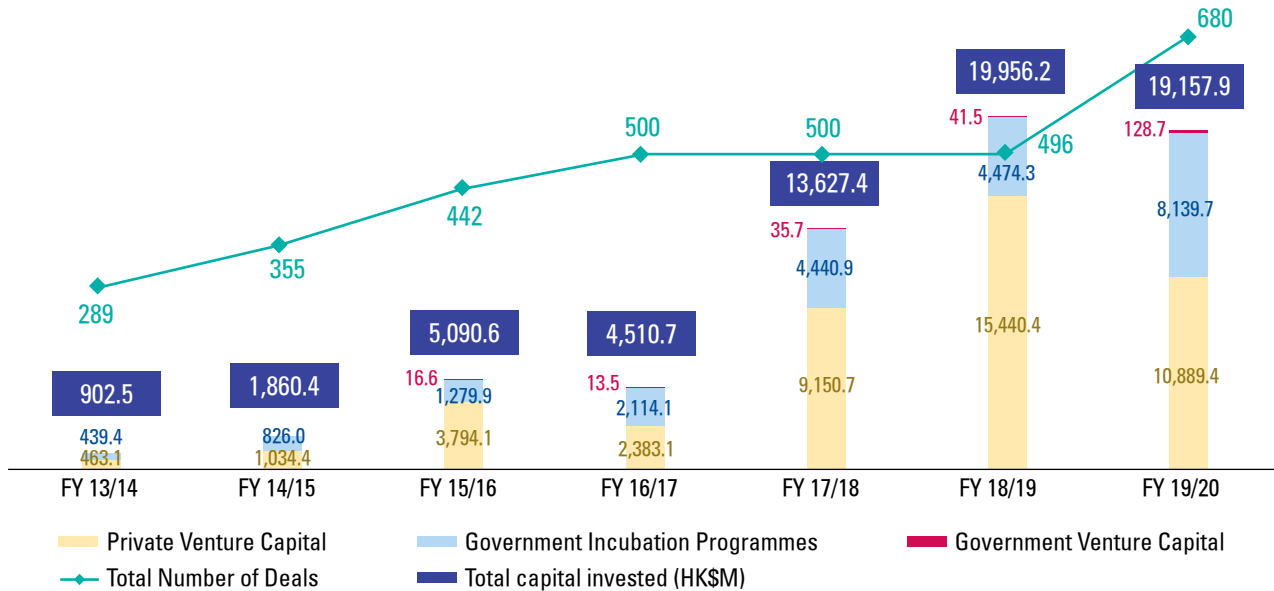
Hong Kong start-ups have also increasingly been able to attract “mega deals” in recent years, with such deals in FY 19/20 attracting funding totalling HKD 3.29 billion, accounting for nearly one-third of the total capital invested.⁹ These deals not only show that Hong Kong's ecosystem has the capabilities to support entrepreneurs in building large and successful businesses – they also serve as success stories to inspire other start-ups in the city and help to attract talent.

Similar to last year, late stage venture capital deals¹⁰ accounted for 61 percent of all private venture capital funding in FY 19/20. The proportion of funding going to late stage deals has been steadily increasing since FY 16/17, as a growing number of start-ups progress from the incubation stage and survive the critical early years to scale their businesses.



Photo: Alibaba Hong Kong Entrepreneurs Fund

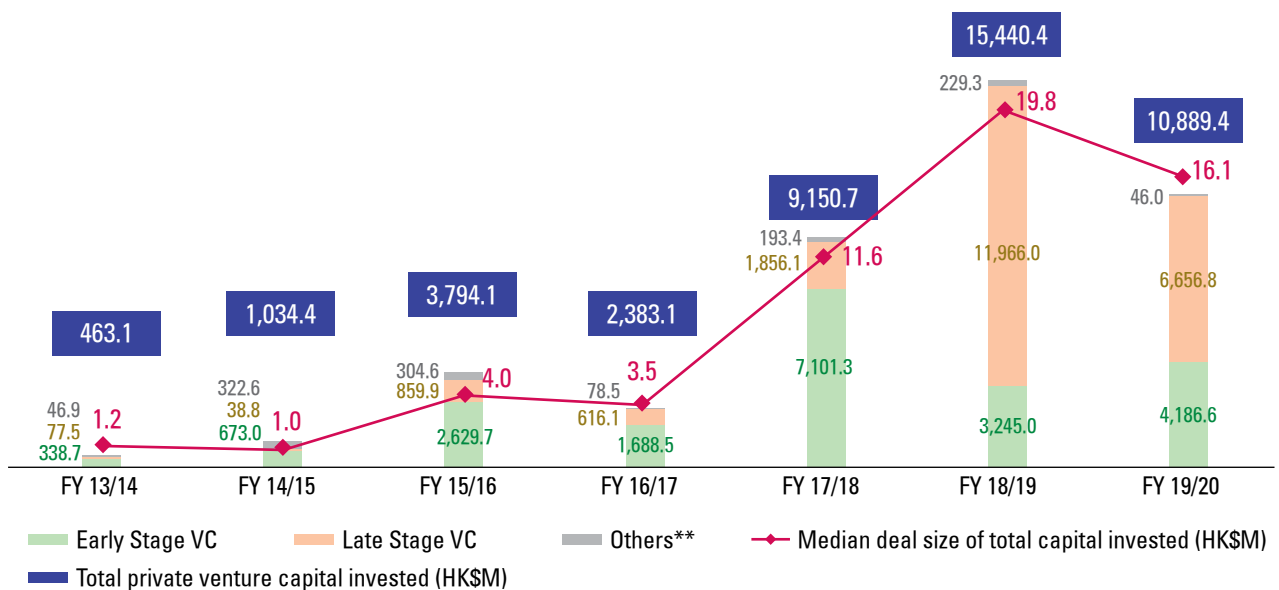
Figure 4: Total capital invested in Hong Kong start-ups (HK\$M) and number of deals*, FY 13/14 through FY 19/20



*Total capital invested and deal count includes private venture capital + government venture capital, grants and incubation funding directed at start-ups in Hong Kong

Source: KPMG analysis based on data provided by Alibaba Hong Kong Entrepreneurs Fund, Cyberport, Hong Kong Science and Technology Park, Pitchbook, and public data from the HKSAR Innovation and Technology Commission.

Figure 5: Private VC funding directed to Hong Kong start-ups by venture stage* and median deal size (HK\$M), FY 13/14 to FY 19/20



* "Early stage VC" includes Seed, Pre-A, Series A and Series B; "Late Stage VC" includes Series C, Series D and Series E

** "Others" include private accelerators/incubators, angel investors, corporate funding, and crowdfunding

Source: KPMG analysis based on data provided by Alibaba Hong Kong Entrepreneurs Fund, Cyberport, Hong Kong Science and Technology Park and Pitchbook

Increasing access to capital in turbulent times

Despite the fact that VC funding is readily available in Hong Kong, many start-ups continue to face challenges accessing funding. This suggests Hong Kong start-ups may need to be more strategic in the way they position themselves when approaching VC funds in terms of their target markets, competitive advantage and scalability.

Entrepreneurs interviewed for this paper observe that since some VC funds view Hong Kong's strengths as being in the areas of finance, logistics and professional services, they are often less interested in start-ups outside of these sectors. Incubators in Hong Kong are playing a role in helping to bridge this gap, matching start-ups with investors, as well as helping their incubatees formulate their pitches to potential investors.

Although there is no shortage of angel investors and late-stage investors, interviewees also point to a potential gap for series A and B funding, with investors less active in this area in Hong Kong compared to mainland China and Southeast Asia. In the current economic environment, VC funds are also expected to be more cautious, and start-ups are likely to find it takes longer for them to raise a mixed round of funding. As a result, it is particularly important that start-ups monitor their cash burn and try to have 12 to 18 months of funding to see them through the COVID-19-related disruption.

In the current economic climate when investors may be more cautious, start-ups should consider venture debt financing in addition to pure equity fundraising. Although not yet common in Hong Kong, venture debt is gaining popularity in Southeast Asia.

More Hong Kong entrepreneurs are recognising access to funding and government support as key advantages

Alongside increased access to venture capital funding, support for start-ups from the HKSAR government has also increased more than fivefold over the past five years from HKD 1.28 billion in FY 15/16 to HK 8.14 billion in FY 19/20 (see Figure 4 on p13). More than 540 start-ups benefited from government incubation and funding programmes in FY 19/20, up from 426 in the previous 12-month period.

At the same time, total government VC investment increased more than threefold, jumping from HKD 41.53 million in FY 18/19 to HKD 128.75 million in FY 19/20. The Government's Innovation and Technology Venture Fund (ITVF), from which a large proportion of these investments are made, was set up in 2017 to attract more venture capital funds to invest in innovation and technology start-ups in Hong Kong. ITVF offers match funding at a ratio of HKD 1 for every HKD 2 invested by co-investment partners up to certain limits.

Preliminary analysis indicates the upward trend in government investment is expected to continue through

Further, our survey found that 57 percent of start-ups polled are currently using government funding, a moderate increase from 43 percent in 2019. This points to a continued need to raise awareness about the availability and types of government grants and other funding available to start-ups. Our survey also found that 35 percent of entrepreneurs mentioned cumbersome application processes as a key reason for not using government funding, reinforcing the need to streamline application processes.



Crystal Pang
Co-founder, Pickupp

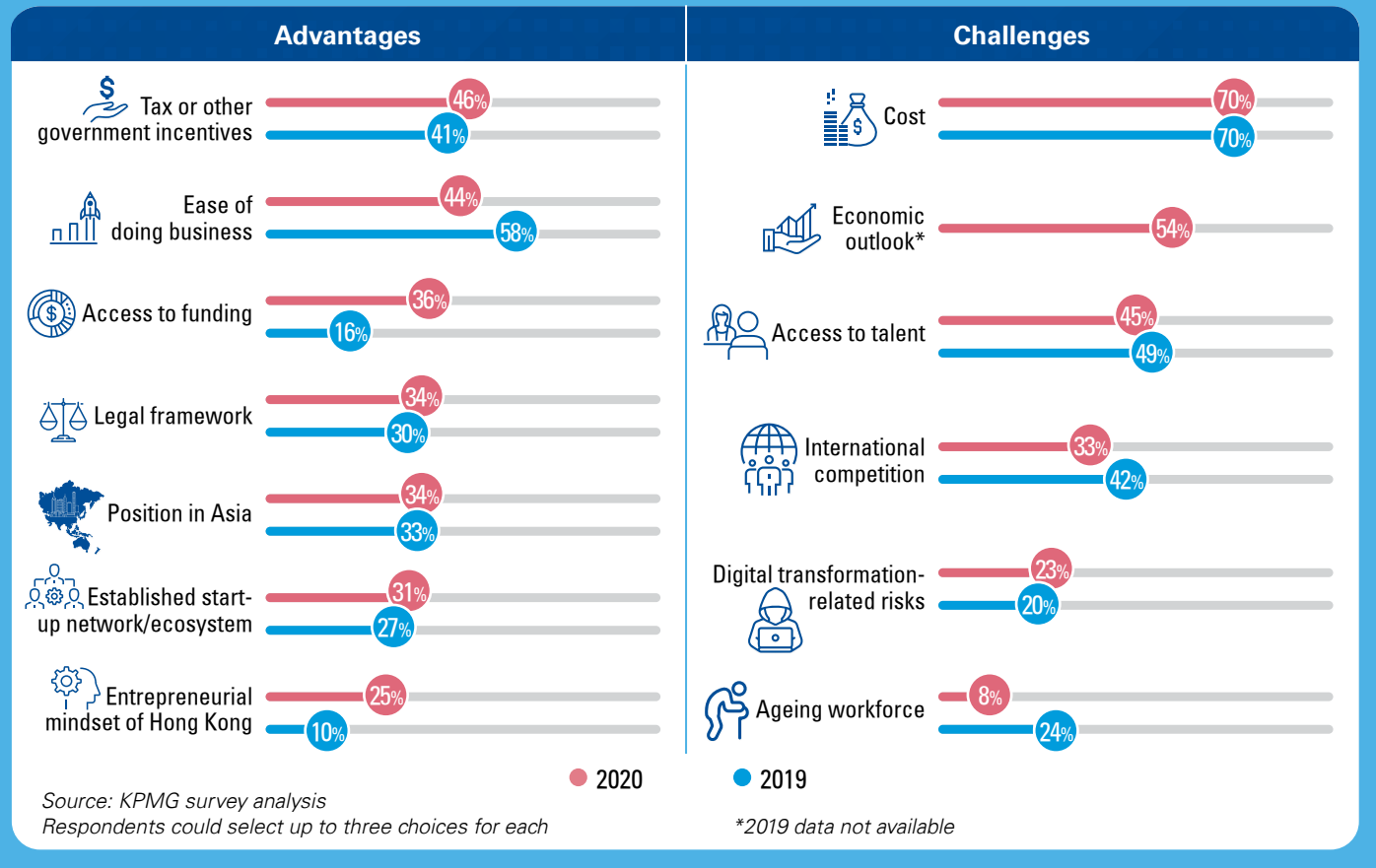
In Hong Kong there is no lack of angel investors and late stage investors, but I think Hong Kong-based VCs are not yet as comfortable with Series A and B funding compared with VCs in Southeast Asia and mainland China, so that's something that entrepreneurs in Hong Kong have to overcome.



FY 20/21. As of October 2020, HKSAR government-run venture capital funds have collectively invested more than HKD 280 million in over 30 start-ups.¹¹ The Government has also announced a further HKD 22 billion from Future Fund, its sovereign wealth fund, which will focus on domestic investment in alternative assets, including venture capital and private equity.¹²

The benefits of government support, such as funding, grants and incubation programmes, are recognised by entrepreneurs. Just under half (46 percent) of entrepreneurs in our survey see tax and other government incentives as being one of the top three advantages of doing business in Hong Kong, followed by 44 percent who cite the ease of doing business in the city. Further, the proportion of entrepreneurs who considered access to funding as being a significant benefit more than doubled year-on-year, rising from 16 percent who listed it as a key advantage in 2019 (see Figure 6 on next page).

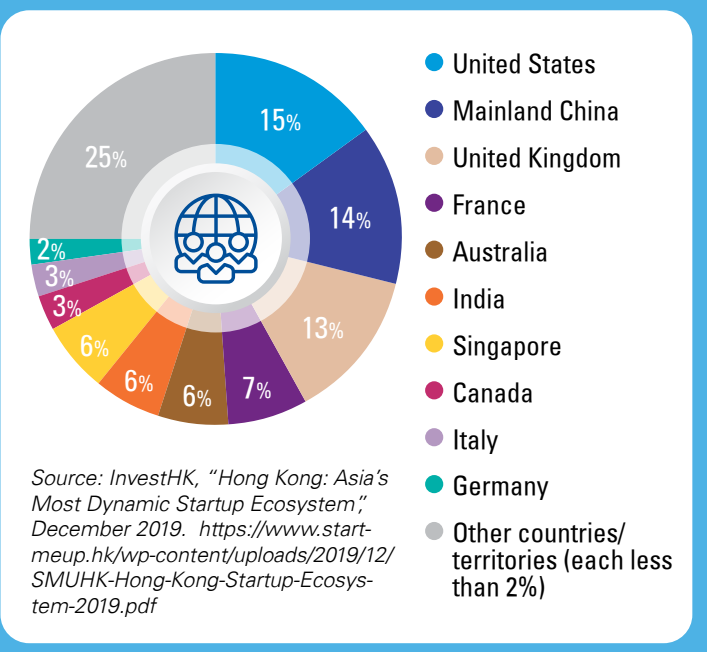
Figure 6: Entrepreneur views on the key advantages and challenges of doing business in Hong Kong



The growth of Hong Kong’s entrepreneur ecosystem is reflected in the increase in the number of start-ups based in the city, with 3,184 start-ups operating there in 2019, a 199 percent increase since 2014, according to figures from InvestHK.¹³ While 59 percent of start-up founders who provided information on their origin were Hong Kong locals, 7 percent were Hong Kong returnees, and 34 percent were non-locals from countries as diverse as the United States, mainland China, the United Kingdom, France, Australia, India, Singapore, Canada, Italy and Germany (see chart on right), suggesting Hong Kong’s start-up ecosystem is sufficiently mature to attract entrepreneurs from abroad.

To help overcome the high cost of operating in Hong Kong, entrepreneurs are encouraged to make full use of the government support available. For example, Hong Kong Science Park has an onsite accommodation project, InnoCell, which is due to open at the end of 2020.¹⁴ As Hong Kong’s start-up ecosystem continues to mature and the city has more success stories, it should also become easier to attract talent from overseas. Later in this report (p. 22), we further discuss key actions needed to cultivate an entrepreneur mindset in Hong Kong.

Origin of non-local start-up founders in Hong Kong by country/territory, 2019





Alfred Sit Wing-hang, JP
Secretary for Innovation and Technology, HKSAR Government

We should view the Greater Bay Area as a relay team competing in the global Innovation & Technology race. To maximise the team's potential, we need to collaborate seamlessly with our GBA teammates and leverage the complementary strengths among us. From Hong Kong's perspective, we should fully unleash our strengths in R&D and fund-raising capabilities and leverage our well-established universities and financial services sector.

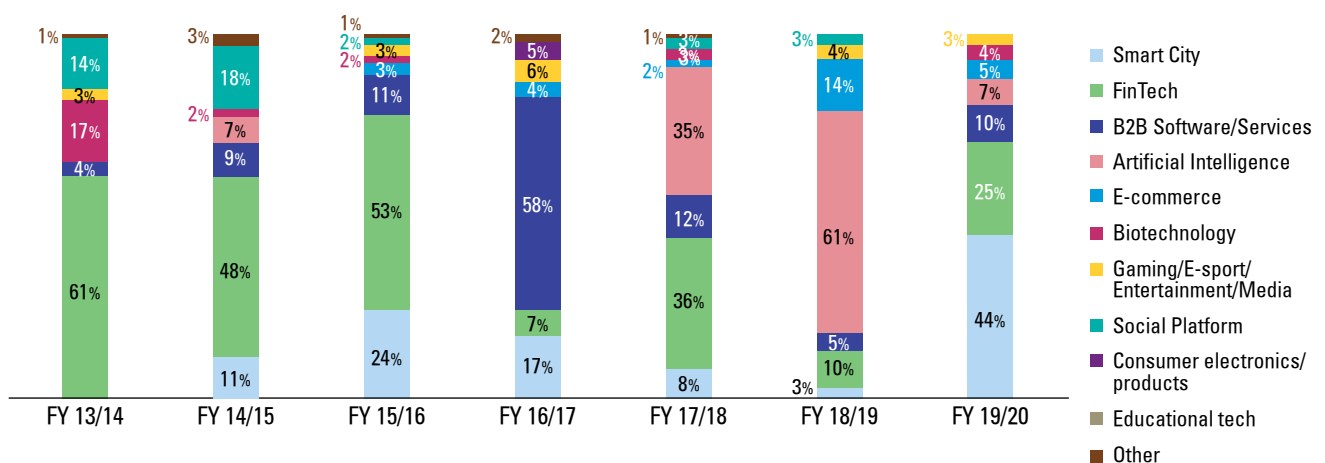


Fintech continues to dominate the start-up scene, with more support needed for other innovation and technology sectors

In terms of number of companies currently operating, fintech continues to be the leading technology sub-sector in Hong Kong's entrepreneur scene, accounting for 465 of the city's 3,184 start-ups, according to InvestHK.¹⁵ By contrast, there are 104 smart city and 32 biotech start-ups. The predominance of fintech is also reflected in our survey findings, with 76 percent of entrepreneurs and 71 percent of corporates agreeing that Hong Kong is a fintech innovation hub. However, less than half of entrepreneurs, students and corporates agree that Hong Kong is an innovation hub for smart city, AI, robotics and biotechnology, suggesting other priority innovation sectors may need more support.

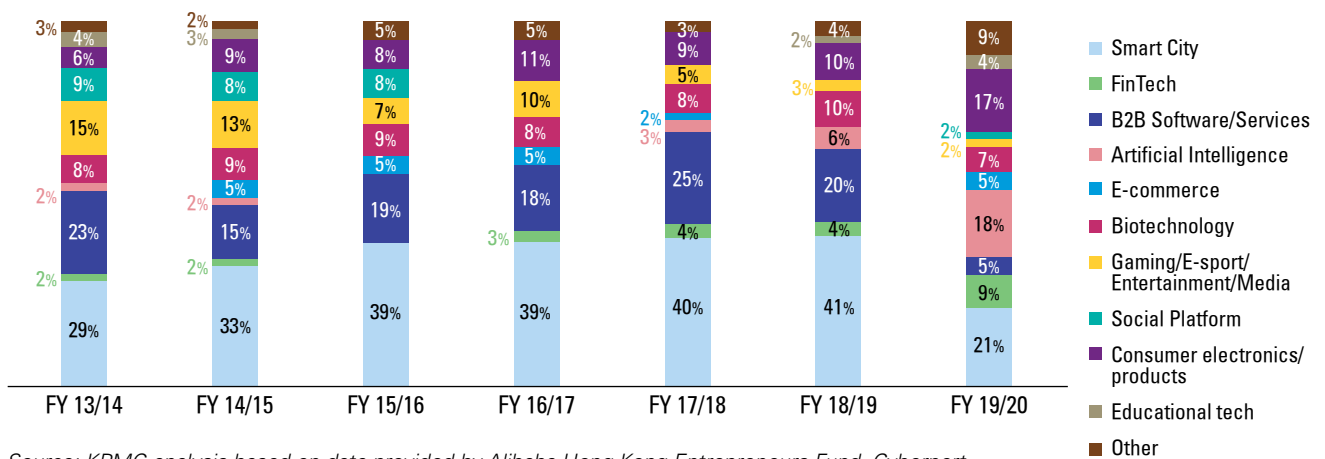
Sector-focused analysis of government and private funding directed at start-ups shows that while fintech attracted a large proportion of funding in previous years, the distribution of funding in the last three years has been more balanced. In FY 17/18, 18/19 and 19/20, smart city, fintech and artificial intelligence-focused start-ups attracted more than half of private VC and government funding (Figures 7 and 8), suggesting that the government's prioritisation of these sectors for innovation and technology development since 2018 is having a positive effect on their development. In addition, biotechnology, also named as a priority sector, has been able to attract a significant portion of government funding, showing its potential to gain traction in coming years with continued government support and supportive policies.

Figure 7: Distribution of private VC funding to Hong Kong start-ups by industry sector, FY 13/14 to FY 19/20



Source: KPMG analysis based on data provided by Alibaba Hong Kong Entrepreneurs Fund, Cyberport, Hong Kong Science and Technology Park and Pitchbook

Figure 8: Distribution of government VC and grants to Hong Kong start-ups by industry sector, FY 13/14 to FY 19/20



Source: KPMG analysis based on data provided by Alibaba Hong Kong Entrepreneurs Fund, Cyberport, Hong Kong Science and Technology Park and Pitchbook

Supporting Hong Kong's emerging biotechnology sector

While a lot of effort has been made in recent years by the government to support biotechnology entrepreneurs, including the creation of an Incu-Bio programme and Health@InnoHK research cluster at Hong Kong Science Park, and changes to the Hong Kong Stock Exchange listing regime to allow pre-revenue and pre-profit biotechnology companies to raise funds, there are still gaps in the ecosystem. In particular, Hong Kong does not have a regulatory body for drug registration. As a result, biotech start-ups that have completed pre-clinical trials need to register their investigational new drugs (INDs) with drug authorities outside of Hong Kong, usually the United States Food and Drug Administration or the National Medical Products Administration in China. The fact that biotech start-ups cannot register drugs in Hong Kong may be a disincentive for them to be based in the city.

Biotech industry players interviewed for this study also point out a lack of good manufacturing practices (GMP) facilities in Hong Kong for the manufacture of drugs. Having centralised GMP facilities that entrepreneurs could use, as well as its own drug registration authority could improve Hong Kong's biotech ecosystem and, in turn, help to attract both talent and investors. A new development on this front was announced in October 2020: Hong Kong Science and Technology Park will partner with City University of Hong Kong to develop a world-class GMP facility in Hong Kong to accelerate the development of cancer therapies, regenerative medicine and related biomedical technologies.¹⁶

Furthermore, allowing the cross-boundary exchange of bio-samples and data between Hong Kong and Mainland cities

in the Greater Bay Area (GBA) would also enable Hong Kong biotech start-ups to benefit from patient data in the GBA and access its GMP facilities, while still using Hong Kong's research capabilities.

In her 2020 Policy Address, Hong Kong Chief Executive Carrie Lam announced further upcoming policy measures to relax limitations on exporting human genetic resources from mainland China for research purposes.¹⁷

Enabling technology transfer and commercialisation

Another area in which the innovation ecosystem needs support is the development of a more robust technology transfer infrastructure to help commercialise the city's strong academic research capabilities. Different universities have very different technology transfer policies, while a lack of direct funding may also be holding back the commercialisation of technology, with most government R&D grants focused on basic and applied research.



Prof. Karl Wah Keung Tsim
Chair Professor of Life Sciences,
Hong Kong University of Science
and Technology

Allowing the cross-border transfer of medical samples will be beneficial to develop the biotechnology sector in Hong Kong and the rest of the Greater Bay Area, and will enable new market opportunities.



A possible way forward, interviewees suggest, could be establishing a taskforce to work with universities to create an inventory of projects that could potentially be commercialised. The taskforce could also connect universities with private sector companies to help them take these projects to market, or provide them with further support to commercialise the research themselves.

Universities could also be more proactive in both encouraging their scientists to be interested in the business applications of their research and in looking for companies to work with to commercialise it, such as through using a third-party platform to advertise their R&D projects. For example, the Hong Kong University of Science and Technology has an incentive system under which researchers receive a proportion of the income from a successful tech transfer case, and other universities could consider similar schemes. Meanwhile, corporates could make better use of Hong Kong's strong academic research capabilities through partnering with universities for R&D.

Public sector initiatives to boost innovation

Other government-supported initiatives may also play a role to boost innovation. The Hong Kong Monetary Authority's Fintech Supervisory Sandbox has helped the fintech sector develop through giving it the ability to test technology and run pilots without having to achieve full compliance. As a result, developers can gather real-life data and user feedback, which can then be used to make refinements to the product or service ahead of its full launch.¹⁸ Since its

launch in August 2016, pilot trials for 169 fintech initiatives have used the sandbox, with banks collaborating with tech firms in 127 cases.¹⁹ Similar innovation sandboxes could also benefit smart city and AI and robotics start-ups by enabling them to test innovations at an earlier stage of development.

In addition, future government regulation should be sufficiently responsive to the needs of technology and innovation sectors, so that solutions can be developed and tested in an efficient manner that also maximises the outcome. For example, in Singapore, the Ministry of Transport is helping to drive the take up of autonomous vehicles through publishing a set of national standards that the vehicles must meet and amending the law to recognise autonomous vehicles.²⁰ It also allows the vehicles to be tested on more than 1,000km of public roads in certain areas.

COVID-19 has highlighted a demand for new products and services. Ensuring government policy keeps pace with technological advances would not only create optimal conditions for Hong Kong start-ups to develop and test their innovations, but it would also help further establish the city as innovation hubs. Innovative business organisations need a safe business environment in which to test their ideas, and creating the right regulatory conditions for certain sectors would act as an incentive for companies working in these areas to base themselves in the city, attracting overseas talent and helping to further develop Hong Kong's start-up ecosystem.

Survey snapshot: innovation sectors



76% of entrepreneurs and **61%** of corporates agree Hong Kong is a fintech innovation hub



Less than half of entrepreneurs, students and corporates agree that Hong Kong is an innovation hub for smart city, AI, robotics and biotechnology

Source: KPMG survey analysis

Assisting growth-stage start-ups with cross-border expansion critical for them to attract sufficient funding

Start-ups recognise that in order to be investible, they need to scale outside of Hong Kong, with many seeing mainland China cities within the Greater Bay Area (GBA)²¹ and Southeast Asian countries as target markets.

Our 2020 survey reflects the cross-border expansion challenges that start-ups face: among the start-ups we polled, 61 percent are currently operating in markets outside Hong Kong, compared to 82 percent who operate in the local market. 31 percent of start-ups say they operate in the nine mainland China cities within the GBA, while an additional 41 percent say they plan to expand into these cities in the next three years. Southeast Asia is the second largest international market, with 26 percent of start-ups currently operating there and 40 percent planning to expand there within three years.

At present, start-ups' sales revenues are still largely dependent on the local market, with 61 percent of revenues coming from Hong Kong. Roughly 13 percent of their revenues come from mainland China (7 percent from mainland GBA cities) and 10 percent come from Southeast Asia.

Cross-border considerations for technology start-ups

To overcome cross-border expansion challenges, Hong Kong technology start-ups are encouraged to focus on localising their product and ensuring they fully understand the consumer nuances of the market they are entering. They must also decide whether they want to scale through using a 'plug and play' model that can easily be exported to a new market, or whether they want to work with a local partner, on either a profit-sharing or joint venture basis. Both models have advantages, with a 'plug and play' model often faster and lower risk, while working with a partner is beneficial in markets with a different language, or a high level of government regulation.

Furthermore, when working with a partner, it is important that start-ups get the right structure in place and take steps to protect their technology. Obtaining funding from family offices and VC funds based in the countries they want to enter can also help start-ups with their expansion through opening up networks to them in these new markets. Some family offices are also increasing their focus on investing in purpose-driven organisations, as the younger generation repositions them as a vehicle for doing good, as well as for generating investment returns.

Industry players interviewed for our study also point out that Hong Kong's small size and dense population makes it a good testing ground for 'smart city' services, particularly as many of the urban challenges it faces are also faced by other cities in Asia.

Entrepreneurs interviewed for our study say they also need more support navigating the rules and policies of the GBA in order to successfully expand into that market, which has a consumer base of more than 72 million people. New guidelines are being introduced on an ongoing basis to further promote the flow of talent, finance and goods within the GBA, with a raft of new measures announced in May 2020 to promote cross-border trade and facilitate investment and financing.²² Even so, obstacles still remain, including a lack of unification in intellectual property laws and patent registration, and different tax regimes. As start-ups often lack the resources to keep up to date with evolving policy in the region, they may need further support from incubators and other mentors in this area to assist with expansion.

In her 2020 Policy Address, Chief Executive Carrie Lam announced that the Hong Kong Trade Development Council would be collaborating with Guangdong Province and relevant chambers of commerce to provide a one-stop "GoGBA" platform offering market information on the GBA and related government policies, enquiry service and training, business promotion, development and matching services for Hong Kong enterprises looking to expand into the GBA.²³

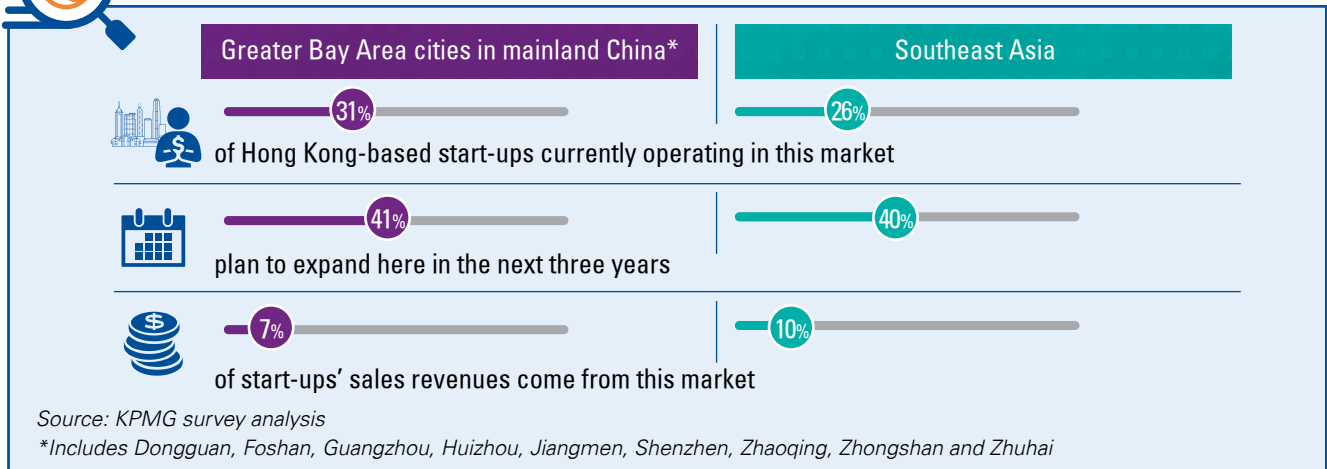


David Chang
Managing Partner, MindWorks Capital

To be investible, start-ups must expand beyond Hong Kong. If technology is scalable in Hong Kong it has a high likelihood to work in other cities.



Survey snapshot: cross-border expansion of start-ups in the Greater Bay Area and Southeast Asia



Aligning start-up and corporate expectations and outcomes critical to successful partnerships

Examining how start-ups have innovated and responded to the changing needs of the market during the COVID-19 pandemic also points towards future opportunities for them to create value. Our survey found that start-ups and corporates agree on the value that start-ups contribute to business innovation. A majority of entrepreneurs and corporate executives surveyed also agree start-ups are instrumental to develop new ideas, keep society dynamic and future-ready, provide opportunities for young people, and create job growth and upward mobility. The current uncertainty caused by the pandemic has further highlighted the benefits of collaboration, as start-ups look to scale, and corporates need to increase their agility to respond to changing market conditions.

Given these attitudes, it is no surprise that many Hong Kong-based corporates are currently partnering and collaborating with a wide range of start-ups across the ecosystem – more than two-thirds (67 percent) of corporates surveyed have partnered or collaborated with start-ups or are currently partnering with them. 62 percent of start-ups we polled, including more than seven in 10 growth stage start-ups, are collaborating or have previously collaborated with larger corporates.

Our findings suggest that both start-ups and corporates see significant benefits to collaborating with each other. Nearly three-quarters (73 percent) of entrepreneurs in our survey say partnering with corporates increases their access to a scalable customer base, while 66 percent say it helps them build credentials for future sales and 42 percent say it gives them access to key decision makers (see Figure 9 on next page). For their part, 65 percent of corporates think collaborating with start-ups helps them keep up to speed with the latest innovation and market developments, and more than half (56 percent) say it helps them discover new revenue streams and business

lines, with 55 percent citing access to more innovative suppliers and business partners as an advantage.

There is also alignment between the type of support corporates and start-ups say they need and the assistance they can provide for each other. 65 percent of corporates say digital and technology capabilities – a leading area of service that technology start-ups can provide – are a key area of needed support. Meanwhile, start-ups polled say financial support and exposure to clients are the two main areas of support they need. This alignment further illustrates the benefits that cross-collaboration brings to both sides.

Reducing barriers to collaboration

For more start-ups and corporates across the ecosystem to realise the benefits of cross collaboration, there are a number of areas that both sides need to consider. Our survey points to a lack of confidence among corporates that start-ups can develop workable solutions for them. While 51 percent of entrepreneurs surveyed think they can play a role in solving problems for corporates, only 33 percent of corporate executives agree. This response is potentially related to the finding that start-ups and corporates surveyed also see misalignment of expectations and outcomes as one of the top risks of collaborating with each other.

Start-ups also expressed concerns about delays caused by corporates bureaucratic processes, cited by 57 percent, while 34 percent worry about lost investment or an unfruitful outcome from a partnership at a time when they are strapped for resources. In addition, start-ups interviewed point to challenges in finding the right internal stakeholder within a corporation to work with.

On the corporate side, 59 percent of corporates expressed concerns about opportunity cost, considering the risk

that the start-up may fail. Four out of 10 (41 percent) corporates also worry that governance and internal control procedures will limit the benefits that could be realised from collaborating.

In order for corporates and start-ups to collaborate more effectively together, corporates should work to simplify bureaucratic processes and commercial agreements to take into account the scarce time and resources of many start-ups. Incubators or other third parties can act as an intermediary to introduce start-ups to companies with problems that the start-ups' solutions could help to solve. Corporates must also adjust their mindset towards taking risks, which may require further incentivisation internally within organisations.

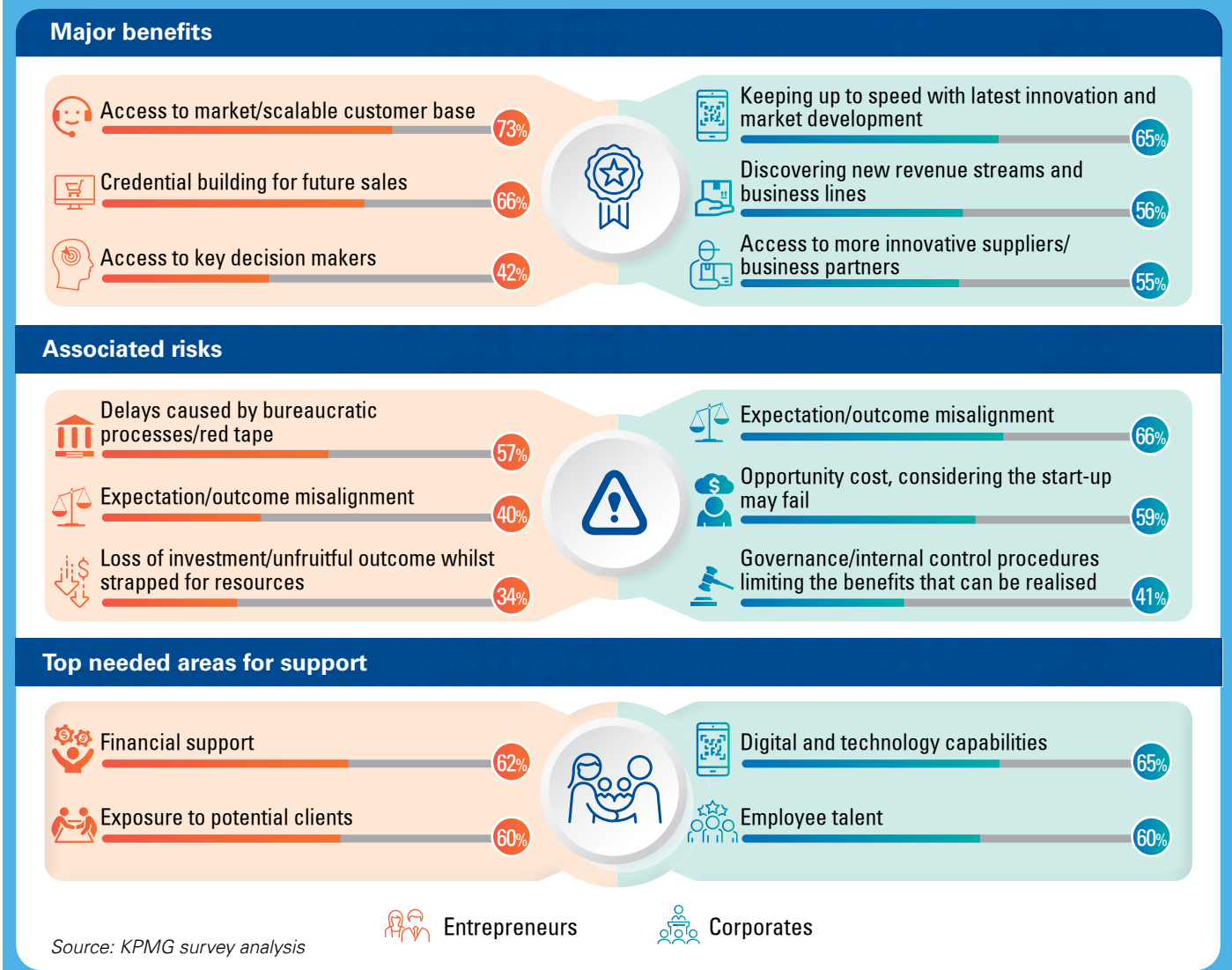
Adjustment needed in the way corporates work with start-ups

Our survey suggests there is also room for adjustment in

the ways that corporates work with start-ups in order to achieve mutually beneficial outcomes. While 42 percent of corporates polled say they provide mentoring to start-ups, only 9 percent of entrepreneurs mention mentoring as a key needed support area. In contrast, 62 percent of start-ups say financial support is the key area in which they need assistance, but only 35 percent of corporates say they provide equity investment, while 17 percent offer debt financing. The findings point to a potential mismatch in the areas in which start-ups hope to benefit from a partnership and the ways in which corporates are currently collaborating with them.

Further, start-ups would also like to work more with corporates to develop their products. Among corporates polled, only 24 percent work with start-ups on product piloting and 16 percent assist with technology licensing. These are two areas that could further incentivise partnerships.

Figure 9: Start-up and corporate views on cross-collaboration



Source: KPMG survey analysis

Entrepreneurs

Corporates

Fostering an entrepreneurial mindset and innovation culture in Hong Kong

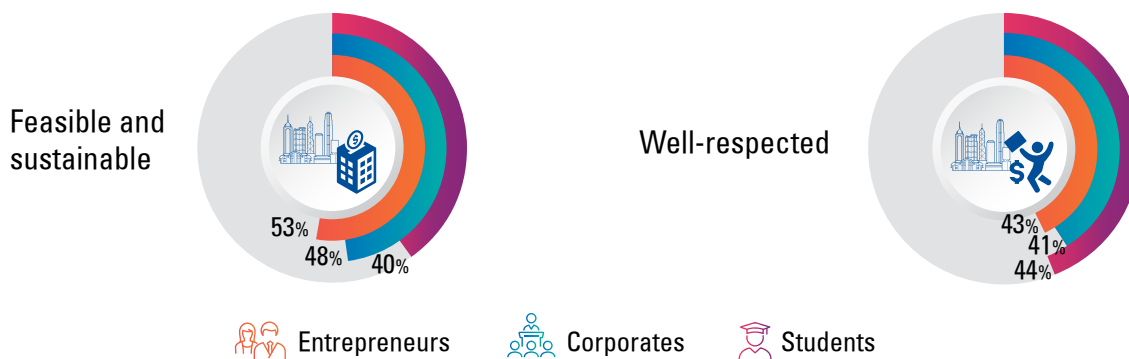
Further mindset change needed for more young people to choose entrepreneurship as a career path

Encouraging an entrepreneurial mindset among businesses, students and the general community is critical to continue to develop an innovation culture in Hong Kong and prepare the next generation for the future of work. Changing public perceptions on entrepreneurship, encouraging corporates to become more purpose-driven and helping students to explore careers as entrepreneurs are all important aspects of building Hong Kong's future talent pool and creating the right conditions for start-ups to thrive.

As discussed in our 2019 and 2018 studies, part of developing an entrepreneurial mindset means promoting the acceptance of entrepreneurship as a career path and career choice for recent graduates. Among respondents surveyed in this year's study, 53 percent of start-ups in our survey agreed that entrepreneurship was a feasible and sustainable career path in Hong Kong, while only 40 percent of students felt the same way. Less than half (44 percent) of students also thought entrepreneurship was a well-respected career path in Hong Kong (Figure 10).

Figure 10: Entrepreneurship as a career path

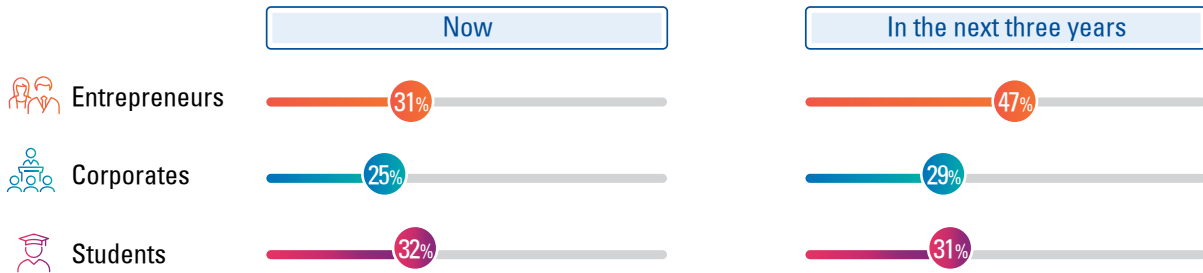
Percentage of respondents who agree that entrepreneurship is a "feasible and sustainable" and "well-respected" career path in Hong Kong



Source: KPMG survey analysis

Figure 11: Entrepreneur role models and success stories in Hong Kong

Percentage of respondents who agree number is sufficient/will be sufficient



Source: KPMG survey analysis

More role models and success stories needed to inspire the next generation

Part of the issue is likely to be Hong Kong's perceived lack of start-up success stories that would encourage more young people to start businesses or join existing start-ups. In this year's survey, 34 percent of entrepreneurs agree that Hong Kong currently has sufficient entrepreneur role models and success stories, with 25 percent of corporates and 32 percent of students feeling the same way (Figure 11).

Successful entrepreneurs typically have a positive impact on the start-up ecosystem through driving interest in the sector, demonstrating the feasibility of building a successful business in the location, and acting as role models and inspiration to students and other young people, encouraging them to pursue a career in the sector, which in turn helps to build a larger talent pool. Mature start-ups can also have a positive impact on the ecosystem through contributing to early stage start-ups, either through investment or offering their skills.

With students often facing pressure from family to follow a more traditional career path, an increase in local success stories could help to persuade parents that working for a start-up is a viable option. Talent also tends to cluster around successful start-ups, creating a virtuous circle in which overseas technology talent and entrepreneurs come to Hong Kong, further boosting the ecosystem.

Our survey also finds that student participation in entrepreneurship programmes offered on and off campus remained relatively unchanged compared to 2019, with student participation in Cyberport and HKSTP incubation and accelerator programmes slightly higher in 2020 compared with 2019 among those surveyed. As previously discussed in our 2019 study, schools and incubators should continue to work to ensure that programmes are catering to students' needs and attracting a broader base of future entrepreneurs across different sectors and disciplines.



Max Liu
Co-Founder & CEO, EMQ

As the Hong Kong ecosystem fosters more successes, it will inspire and empower the next generation of entrepreneurs. These successes will be the guiding star for the younger generation.



Viable career paths for Hong Kong STEAM graduates are needed, in addition to more support for STEAM education

In order to have the skills needed by start-ups and the innovation and technology sector more generally, more students in Hong Kong need to be encouraged to study STEAM subjects (science, technology, engineering, arts and maths). However, support for STEAM education is only part of the solution – enabling companies to create related jobs is also critical for students to see STEAM fields as a viable career option.

Inspiring more young people to be interested in STEAM is seen as an important aspect of building up Hong Kong's start-up ecosystem and developing a future-ready talent pool, with 65 percent of survey respondents citing it as a key development area (see Figure 12 on next page). More than half of corporates (53 percent) and students (51 percent) also think more hands-on training in the industry is needed, rising to 62 percent among entrepreneurs. Other areas which are also seen as needing attention include increasing investment in teachers' professional development and offering more support for STEAM in the school system.

Increasing career development opportunities key to supporting STEAM

While schools and universities in Hong Kong already teach STEAM subjects, students need more help to see how these subjects can lead to viable career paths. One option is to increase students' access to work experience, apprenticeships and project-based learning to give them both first-hand experience of working at a start-up and help them to build up contacts in this area. In mid-2020, the Government launched a "STEM Internship Scheme" in coordination with local universities, which

as of November 2020 had attracted more than 1,200 students to complete internships with over 800 private and public sector organisations. This is a positive step that will hopefully encourage students to pursue careers in STEAM, and could also potentially be expanded in future years to cover a wider variety of employers and fields.²⁴

Another opportunity in this area is the Technology Leaders of Tomorrow Programme for science and engineering graduates launched by HKSTP in July 2020. Under the scheme, which is being offered through HKSTP's InnoAcademy, successful applicants are able to spend 24 months in a full-time R&D role at one of 11 HKSTP partner companies that are at the pilot stage. They also receive innovation leadership training, career guidance and take part in an innovation & technology industry bootcamp. The scheme aims to enable graduates to experience what a career at a technology start-up might be like and help them to develop contacts in the industry.²⁵

In her 2020 Policy Address, Chief Executive Carrie Lam proposed a new five-year, HKD 2 billion "Global STEM Professorship Scheme" to attract outstanding R&D talents working overseas to come to Hong Kong.²⁶ A plan was also announced to provide 2,000 places, including in the I&T sector, for graduates of Hong Kong universities to work in the GBA under the Greater Bay Area Youth Employment Scheme.²⁷ The government's FinTech Anti-epidemic Scheme for Talent Development (FAST) scheme administered by Cyberport has also aimed to support STEAM graduates by subsidising fintech companies to hire local graduates.²⁸

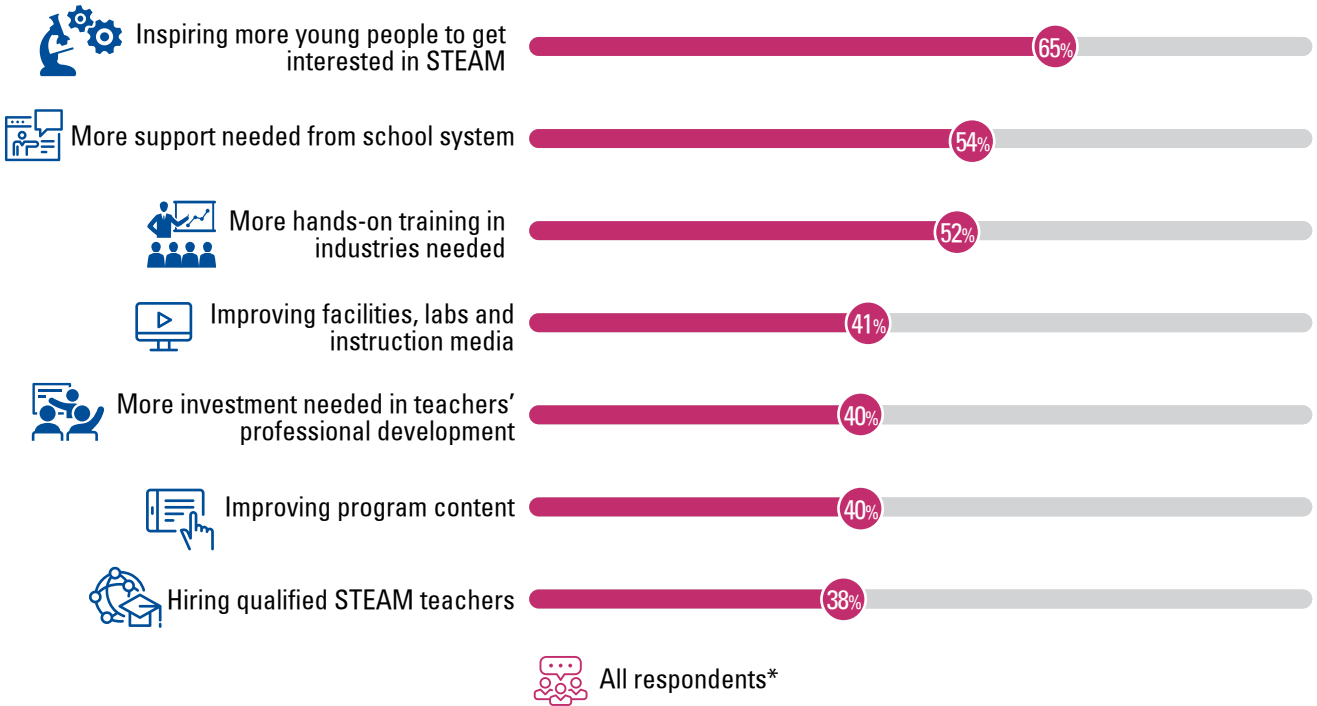


Erica Ma
Managing Partner, CoCoon Ignite Ventures

Work experience, apprenticeships, and project-based learning help empower a future workforce and encourage students to study STEAM subjects.



Figure 12: Key areas to support STEAM in Hong Kong



Source: KPMG survey analysis

*Only respondents that indicated that support for STEAM in Hong Kong was not sufficient were polled



Suggestions to improve Hong Kong's entrepreneur landscape

A strong sense of purpose and sufficient support of capabilities are equally essential to drive entrepreneurship and build a robust, vibrant and sustainable start-up landscape. We have compiled the following list of suggested key actions for start-ups, corporates, the public sector and university students:



Capturing opportunities for start-ups to grow and scale in Asia-Pacific

- Start-ups with products and services that have been proven to work in Hong Kong should look to capture opportunities in the rest of the Greater Bay Area (GBA) and Southeast Asia by seeking out resources and relevant policies that facilitate their expansion there. They can do this by building on Hong Kong's reputation for high regulatory and consumer product standards while also localising their solutions for these markets. Some companies have adopted a 'plug and play' model when expanding outside of Hong Kong, while others have found working with a local partner has enabled them to understand the consumer nuances of the new market better.
- In order for businesses to fully realise the potential of the GBA, tax policies and intellectual property (IP) protections could be further optimised. For example, when start-ups set up offices in Hong Kong and mainland China GBA cities, jurisdictions across the GBA could uniformly recognise IP registrations that originate either in Hong Kong or the mainland. At the same time, IP jointly developed by Hong Kong entities and mainland China GBA entities, regardless of the location of IP registration, could be honoured by both tax authorities in mainland China and Hong Kong for the granting of R&D-related tax incentives. This would create more synergy across the GBA, helping to build a more competitive environment to breed innovation & technology unicorns.
- To encourage Hong Kong-based funds to invest into high-tech industries in the mainland China GBA cities, tax authorities could revisit policies with regards to profit repatriation and divestment. For example, simplified application procedures could be considered for claiming preferential tax treatment under the Double Taxation Agreement between Hong Kong and the mainland. In addition, more clarity could be provided on tax treatment around special investment channels such as the Qualified Foreign Limited Partnership. Tax incentives offered to mainland China investors could also be extended to Hong Kong investors.
- Jurisdictions should facilitate the transfer of data between Hong Kong and mainland cities in the GBA with appropriately aligned data governance policies, to enable Hong Kong biotech start-ups to benefit from the use of a wider amount of patient data.

- Governments should also look for ways to connect different funding schemes between Hong Kong and the rest of the GBA, providing start-ups with the information they need to apply for additional funding as they expand outside of Hong Kong.
- When expanding into new markets, start-ups should seek out institutions in those markets, such as VC funds, family offices and industry support networks that can help to open up opportunities for them.
- Hong Kong students with ambitions to work at start-ups or in R&D should seek out opportunities to experience and better understand the rest of the GBA. Three ways they could explore this would be studying at one of the mainland China GBA campuses of Hong Kong universities, exploring internship opportunities in GBA cities, or taking advantage of the Government's new Greater Bay Area Youth Employment Scheme.



Fully optimising Hong Kong's technology transfer ecosystem

- The HKSAR Government should work to develop a more robust technology transfer infrastructure so that the city's strong academic research capabilities can facilitate more opportunities for commercialisation. An important first step is developing a common inventory of projects that could potentially be commercialised. The Government can also consider exploring ways to connect local institutions to technology transfer initiatives throughout the GBA and elsewhere in China, in light of China's announced plans as of October 2020 to develop a national comprehensive service platform to provide one-stop services for the transaction and transfer of scientific and technological achievements.
- Universities should increase the visibility of their projects and be more proactive in looking for partners with which to commercialise their research. Both universities and start-ups can make use of the HKSAR Government's E&M InnoPortal, which lists the technology solution wish lists of government departments and public sector bodies. Through the InnoPortal, solution providers can match their research and innovations with the needs of public sector groups and seek out partnerships.

- The HKSAR Government could encourage universities to look for commercial partners by adjusting its approach to R&D funding – including putting more emphasis on projects that may have commercial applications; only providing partial funding for R&D projects; or considering universities' track records on technology transfer when allocating funding.
- Guiding Hong Kong's biotechnology sector to maturity will require continued long-term effort, even with significant government investment and supportive policies in place. More attention should be placed in assisting with commercialisation to take full advantage of Hong Kong's strong academic research capabilities. One area of focus could be training executives on the business side of biotech so they can work together with researchers to successfully pitch investors.
- Institutions should increase support for start-ups at all stages, including access to capital for growth stage start-ups and assisting with exit options for mature stage ones, enabling them to capitalise on Hong Kong's strengths as an IPO destination.



Implementing innovative policies that further support the start-up landscape

- The HKSAR Government can consider expanding 'regulatory sandboxes' to give start-ups and corporates opportunities to build and test solutions, to encourage them to come together and leverage each other's advantages. Relevant government bodies should collaborate to expand these 'regulatory sandboxes' across the GBA and Southeast Asia to assist start-ups to expand outside of Hong Kong. Further, greater assistance from these groups is needed to facilitate more testing and trials of new technologies, such as autonomous vehicles and smart city, and designate more areas in which trials can take place. Hong Kong can also review and reference best practices from other leading cities in the region.
- Public sector trial schemes currently in place should be better publicised in order to build community support.
- Policies that aim to reduce waste and carbon emissions also have great potential to drive entrepreneurship and new industries. For example, China's announcement that it will phase out single-use plastic by 2025 has created opportunities for start-ups such as Ecolnno, a producer of biodegradable food packaging and utensils, which was one of the winners in Alibaba Entrepreneurs Fund's Global Pitch Competition in 2020.
- The HKSAR Government should consider expanding its funding criteria for start-ups to encourage overseas entrepreneurs and start-ups to relocate to Hong Kong. It should also evaluate how rules relating to government funding impact start-ups' ability to expand overseas. In addition, the government should consider taking steps to streamline the funding application and approval processes involved with key funding channels such as the Innovation and Technology Fund. Creating a centralised resource for start-ups detailing the various different funding schemes available and how to apply could make a big difference in this space.
- To further support the sector and encourage overseas biotech start-ups to be based in Hong Kong, the HKSAR Government should consider creating a regulatory body for drug registration in Hong Kong and developing more Good Manufacturing Practice (GMP) facilities.
- To provide more viable career paths for STEAM graduates, the HKSAR Government should increase subsidies and other incentives to companies to hire STEAM graduates from local universities, such as those offered under the FinTech Anti-epidemic Scheme for Talent Development (FAST Scheme).



Facilitating meaningful collaboration between start-ups, corporates and Government

- Corporates should be willing to open up and try new ideas and adjust their mindset to see start-ups as partners rather than service providers or vendors, or even competitors. Part of this change requires viewing innovation as something that should permeate an entire organisation, as opposed to a single department or office. It also requires more focus on value rather than return on investment, taking a longer-term view to build a competitive advantage using technology.
- The HKSAR Government can lead the way in this area by collaborating with start-ups and promoting success stories. Government investments in innovation and co-creation with start-ups will create circular benefits for all parties involved. Exploring new ways to work with these groups will create opportunities to deploy creative new applications for the Government's back and middle office and citizen-facing services, leading to increased productivity and citizen satisfaction. A second step would be to review existing policies that may be preventing start-ups from applying for government contracts and look for ways to incentivise the public sector to adopt start-ups' innovations. At an overall level, a more proactive approach towards the start-up community can generate strong benefits for public sector operations and lead to greater economic benefit from the I&T sector.
- Start-ups should look for a good product and cultural fit with the organisation(s) they seek to collaborate with, leveraging employees with industry knowledge who understand how corporates operate and how to communicate effectively with corporate teams.
- Corporates should expand the way they work with start-ups beyond mentoring to include product development, pilots/testing, licensing technology and even provide funding and introductions to connections and banks.





Photo: Alibaba Hong Kong Entrepreneurs Fund



Photo: Alibaba Hong Kong Entrepreneurs Fund



Photo: Alibaba Hong Kong Entrepreneurs Fund



Photo: Alibaba Hong Kong Entrepreneurs Fund

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Contact us



Andrew Weir

Vice Chairman, KPMG China
Regional Senior Partner, Hong Kong
KPMG China
T: +852 2826 7243
E: andrew.weir@kpmg.com



Ayesha Lau

Managing Partner, Hong Kong
KPMG China
T: +852 2826 7165
E: ayesha.lau@kpmg.com



Irene Chu

Partner, Head of New Economy and
Life Sciences, Hong Kong
KPMG China
T: +852 2978 8151
E: irene.chu@kpmg.com



Marcos Chow

Partner, Head of Technology Enablement,
Hong Kong
KPMG China
T: +852 3927 5628
E: marcos.chow@kpmg.com



Anson Bailey

Partner, Head of Technology, Media
and Telecommunications, Hong Kong
KPMG China
T: +852 2978 8969
E: anson.bailey@kpmg.com

About Alibaba Hong Kong Entrepreneurs Fund

Alibaba Hong Kong Entrepreneurs Fund (“AEF”) is a non-profit initiative launched by Alibaba Group in 2015. To vitalise the development of innovation and technology, AEF’s mission is to help Hong Kong entrepreneurs and young people realise their dreams and visions for a Hong Kong that is vibrant and engaged regionally and globally. As part of its investment program, AEF provides Hong Kong-based entrepreneurs with investment capital and strategic guidance to help them grow their businesses and penetrate the mainland Chinese and global markets, by utilising Alibaba’s digital economy. From 2020, AEF has also strengthened its commitment to youth entrepreneurship with a brand new initiative – “AEF GO-GETTER!”. The program is made to educate and encourage Hong Kong students from secondary schools and universities to pursue entrepreneurship by putting practice over theory and providing early visionaries with business fundamentals, global perspectives and networking opportunities. It is available to all students from secondary schools to universities.

For more information, please go to the website: <http://ent-fund.org>

Contact us

**Cindy Chow**

Executive Director

T: +852 2215 5100

E: cindychow@ent-fund.org**Vicky Wong**

Associate Program Director

T: +852 2215 5100

E: vickywong@ent-fund.org

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P. 4

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P. 7

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P. 12

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⁹ In this report, “mega deals” are defined as VC investments of USD 200 million (HKD 1.55 billion) or more. According to Pitchbook, Hong Kong start-ups secured 2 mega deals in FY19/20, totalling HKD 3.29 billion.

¹⁰ In this report, “late stage” venture capital includes Series C, Series D and Series E funding. Seed, Pre-A, and Series A and B funding are considered “early stage”.

P. 14

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Alfred Sit Wing-hang, JP

Secretary for Innovation and Technology, HKSAR Government

Ricky Wong

Vice Chairman & CEO, Hong Kong Television Network

Prof. Karl Wah-Keung Tsim

Chair Professor of Life Sciences, Hong Kong University of Science and Technology

David Harity

Head of Growth Propositions, Commercial Banking, Hong Kong, HSBC

Daniel Chan

Head of Business Banking, Hong Kong, HSBC

Lap Man

Co-Founder and Managing Partner, Beyond Ventures

David Chang

Managing Partner, MindWorks Capital

Roland Yau

Managing Partner, CoCoon Ignite Ventures

Erica Ma

Managing Partner, Cocoon Ignite Ventures

Jessica Tam

Head of the Social Enterprise Business Centre, Hong Kong Council of Social Service

Francis Ngai

Founder and CEO, Social Ventures Hong Kong

Lehui Liang

Head of Purpose Capital, Social Ventures Hong Kong

Ben Wong

Head of Open Innovation, Eureka Nova

Danny Yeung

Co-Founder and CEO, Prenetics

Stanley Sy

CEO, Sanomics

Xiao Jianxiong

Founder and CEO, AutoX

Crystal Pang

Co-Founder, Pickupp

Patricia Dwyer

Founder and Director, The Purpose Business

Max Liu

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