SINGAPORE: Rapidly Evolving Startup City-State

Economically, Singapore is a jewel of a city state, and one of Asia's most vibrant hubs. With GDP of $297B and a population of 5.6m, that's $90,000 GDP per capita, the 7th best in the word. Its savings rate of 45% is 5th best in the world. With low inflation, low unemployment, low interest rates, and a healthy, well-educated population (with a high percentage of migrants), what once was a swamp turned into a global trading hub is a dynamic place—for multinationals as well as startups.

Despite obvious differences, it's tempting to compare Israel and Singapore because of their small populations (Israel has 8.5m) and geographies, lack of natural resources but high levels of human capacity, and similar GPDs (Israel's is slightly bigger at $318B). In the Compass Startup Genome 2017, Tel Aviv is ranked #6 and Singapore #12 (it slipped from #10 in 2015 only because two new Chinese entrants, Bejiing and Shanghai, were included). Both countries have strong government support for entrepreneurs, and decent venture-capital sectors. *Inc.* magazine, conversely, ranked Singapore #6 and Tel Aviv #10 in its 2017 ranking of global startup hubs. And Nestpick, a Berlin startup that analyzed 85 startup locations, ranked Singapore #1 for quality of life, cost of living and benefits, ahead of Helsinki, San Francisco, Berlin and Stockholm (the only other Asian city in the top 120 was Seoul).

But Israel's startup culture has historically been much stronger than Singapore's more conservative, risk-averse ("kiasuism") culture, and that is reflected in key metrics. Israel attracted $4.2B in VC investment in 2016, While Singapore startups attracted $1.4B. (However, 2017 VC investments in Singapore startups appear to be pushing $4B.) While Singapore's startups were valued at $11B in 2017, Tel Aviv's were valued at $22B. Israel has nine unicorns (valued at $1B +), compared to two for Singapore. In general, while Singapore scores well on many metrics, it lags Israel and other hubs on exits. In short, while Singapore is dynamic, as a startup ecosystem it is still maturing.

But falling short of Israel, the vaunted “startup nation,” is no crime, especially given Singapore’s geographic advantages in the heart of tech-savvy and trade-happy Southeast Asia. And there are indications that Singapore is on a strong upward trajectory, with 2015 generally seen as the tipping point—the first year Singapore startups raised more than $1B in investment. There were 48,000 startups in 2015 compared to 22,000 in 2003, many of them located in BLOCK71 (Blk71) Close to INSEAD, the National University, and government-sponsored innovation hubs, Blk71 was dubbed by The Economist as the “world’s most tightly packed entrepreneurial ecosystem.” (Compass tracked 1600-2400 *venture-backed* startups in its 2017 survey).

Valuations and exits are beginning to pop as well. In 2015, there were 27 exits, the highest number to date. Sea, a gaming company and one of Singapore’s unicorns, raised $550m in venture in 2017, and then $884m in a U. S. IPO later that year. Singapore’s ride-hailing Uber-rival, Grab, raised the largest investment round in the region to date: a $2B Series G in Q3’17, upping’s Grab’s valuation to $6B. Participants included Japan’s SoftBank Group, Chinese ride-hailing startup Didi Chuxing, and Toyota. And Google recently acquired Pie, a startup that built a Slack-like enterprise chat-app that helps teams communicate without email, and is using the company as the foundation for its first engineering team devoted to Southeast Asia. This was Google‘s first Southeast Asia acquisition, and Pie’s nine-person team shuttered operations to join the Google team. Before this engineering initiative, Google, Microsoft, and IBM had focused only on business operations in Singapore. Israel, by contrast, boast major R&D operations from all the world’s major technology firms.

In recent years, three drivers have bolstered Singapore’s ecosystem: talent, government involvement, and the rise of China as an economic powerhouse. The last two go hand in hand, as the rise of China has forced the Singaporean government to imagine the day when its vaunted status as a trading hub (its port is one on the busiest in the world in terms of tonnage) may well be eclipsed by new Chinese channels, which has led to a focus on building out its startup and innovation culture.

#1 IN TALENT!

In the 2017 Compass Startup Genome rankings, Singapore was ranked #1 in the world in startup talent. That is a major shift, because as recently as a few years ago one of the stumbling blocks to innovation in Singapore was seen as a lack of talent and a culture that prized corporate employment over risky entrepreneurship. In 2015, for example, Compass noted that talent was "hard to find and hard to maintain in Singapore." Today, there is a young but experienced cohort of software engineers, including a hefty number of foreigners, buoyed by Singapore's proximity to emerging and developed markets. And these engineers are willing to work at lower salaries than in other hotspots, well below the global average of $49,000 for software engineers.

A key reason for the recent upgrade in and availability of talent is overseas study and work. More than 70% of Singapore students now study abroad, compared to 10% a decade ago, sparked in large part by the National University's National Overseas Colleges (NOC) program. It sends 200 students overseas annually to work in year-long paid internships in entrepreneurial hubs like Silicon Valley, Stockholm, Tel Aviv, and Beijing. Students are expected to return and start companies; to date, roughly 2,000 alumni have started 250 companies (with more than 100 still active). Zopim, a NOC spinoff, was acquired by Zendesk for $30 million in 2014. The latest NOC spinoff is Carousell, an app for a peer-to-peer marketplace, somewhat like Craigslist for the Snapchat generation. Founder Siu Rui Quek went to Mountain View in 2010 as a startup intern at VSee.

In fact, dating back to early 2000s, enough successful entrepreneurs have started second or third companies or become investors to help Singapore develop the critical mass needed in what is always a numbers game—of entrepreneurs, startups, investors, and acquirers. Darius Cheung, one of the first NOC interns in 2003, founded tenCube (a kind of "find my iPhone" before that existed) and later sold it to McAfee. He later founded 99.co, a real-estate search website, in 2013, and is now an investor in startups. Hian Goh started the Asian Food Channel in 2005, sold it in 2013 to XXXX, and launched his own venture firm. This pattern is similar, although on a much smaller scale, to the wealth-creating success of Chinese entrepreneurs in the late ‘90s and early 2000’s, which began a virtuous cycle of reinvestment in the ecosystem.

PRO-ACTIVE GOVERNMENT SUPPORT

If 2015 was a tipping point for the Singapore ecosystem, when the talent, investment, and exits began to coalesce and combust, the government efforts to build the ecosystem began years earlier. For governments, yesterday’s key question was: How can I attract and retain the best manufacturing and service providers? Today’s question is: How can we attract and retain and grow a world-competitive startup ecosystem? In fact, from a practical perspective, it’s a heavy lift to create such ecosystems without focused and effective government involvement. And some governments have done an exceptional job at it, China, Israel, and New York City being prime examples.

In 1999, the government launched a $1B Technoentrepreneurship Fund, which could invest up to $2m in any one company. In 2008, under the National Framework for Innovation and Enterprise (NFIE), Singapore’s Early State Venture Fund was launched to co-invest with startups on 1:1 basis. The program drew inspiration from a joint program between Israel and the U.S. called the Binational Industrial Research and Development Foundation, allowing five VC firms to receive matching funds from government. In 2009, using Israel’s Yozma as a model, Singapore went further. If a startup persuaded a private investor to invest in the company, the government would match it 5:1. The private investor could later buy out the government’s investment. Singapore also created a network of incubators to kickstart the process. This Technology Incubation Scheme (TIS) has led to the creation of a network of 14 incubators. Temasek, the state investment company, also provided $90 million to fund four Singapore venture companies, notably Vertex Ventures Venture investment in startups increased from $454m in 2013 to $1.1B in 2015 roughly $4 billion in 2017. Leading global VC firms, such as Sequoia, Golden Gate Ventures, 500 Startups, and Facebook co-founder Eduardo Saverin, set up offices in Singapore.

Besides NOC, the other initiative that has sparked the cultivation of talent and business formation is the aforementioned Block 71 (Blk71). In 2010, Blk71, an old industrial complex, was slated for demolition to make way for re-development. However, in 2011, NUS Enterprise, SingTel Innov8 and the Media Development Authority of Singapore collaborated to renovate the 7-story building and turn Blk71 into a start-up hub. The intention was to pull together the widely dispersed technology start-up cluster for increased mass, synergy and economies of scale. Plug-in@Blk71, managed by NUS Enterprise, was set up as the heart of Blk71, to spearhead and catalyze activities.

Blk71 quickly became a beacon for entrepreneurs and home to hundreds of tech-related start-ups, venture capitalists, and incubators. In recognition of the success of Blk71, the Singapore government later expanded the program, renovating Blk73 and Blk79 to house more entrepreneurs and incubators. In 2015, the government established BLOCK71 San Francisco, a two-way street between Silicon Valley and Singapore. In two years, BLOCK71 SF has hosted more than 70 start-ups (with 15-20 active at any one time) in the South of Market neighborhood of San Francisco, with neighbors such as Twitter and LinkedIn. Any Singaporean entrepreneur can use BLOCK71 SF as a base to explore opportunities or raise funds in the U.S. NUS engineering alum Arun Thampi, for example, a former NOC intern, co-founded chatbot analytics start-up Botmetrics at BLOCK71 SF in early 2016. Eighteen months later, he sold Botmetrics to bot software start-up Howdy, for an undisclosed sum.

In some ways, BLOCK71 SF is a combination of NOC and Blk71 in Singapore—sending young entrepreneurs overseas not as interns, but as business builders (and scouts). The NOC program sends college juniors abroad so they are forced to come home for senior year. What will happen to Singaporean entrepreneurs who launch business in BLOCK71 SF remains to be seen, but the hope is obviously that they will return home with Silicon Valley experience and connections.

Opened in 2015 near Blk71, JTC LaunchPad@one-north (LaunchPad) has completed three new blocks (75, 77 and 81), and houses more than 800 startups and close to 50 incubators. The initial companies, which have access to research institutes, institutes of higher learning, and knowledge-based corporations, were in the media and communications space, but now include engineering, biomedical, FinTech, and urban-solutions companies. The success of LaunchPad over the past two years has attracted international and corporate incubators, such as Trendlines Medical Singapore, Trendlines' first medical-technology incubator outside of Israel. Trendlines has expertise in technology incubation, and worldwide experience and partnerships in the medical-devices sector.

To provide one-stop assistance for startups who are embarking on their regional and international expansion, the Action Community for Entrepreneurship (ACE) will collaborate with relevant agencies to establish the ACE International Centre in the LaunchPad. ACE will complement the expansion of LaunchPad with new initiatives to foster stronger corporate partnerships with startups and SMEs, talent development and international market access.

In March 2017, to keep pace with the global competition for talent and startups, the Minister of State for Trade and Industry (Mr Koh Poh Koon) announced the launch of Startup SG. Startup SG is an umbrella for all the support schemes for startups in Singapore, a platform to access local support initiatives as well as connect to the global entrepreneurial network. Startup SG is a one-stop source for loans, grants, funding and capability-enhancement. In 2017, Startup SG invested $200 million in startups, co-investing up to 70%.

Startup SG modules include Startup SG Founder, Startup SG Equity, Startup SG Tech, Startup SG Accelerator, and Startup SG Talent. Startup SG Equity has allocated about $200 million to co-invest in startups in deep-technology areas such as medical technology, clean technology and advanced manufacturing and engineering (www.startupsg.net)

WANTED: BLOCKBUSTERS!

Singapore's startup ecosystem has evolved rapidly, especially over the last five years. But its ability to self-generate and explode, or at least move back into the top 10 of global ecosystems, is still in doubt, for several reasons. One is funding. While investments are rising, Singapore's startup investment power lags behind ecosystems it is ranked above, such as those of Sydney, Austin, Toronto, and Chicago. One clear reason for this is the huge gap with other ecosystems in moving beyond Series A funding. Early stage (67%) and Series A (19%) account for 86% of total investments. But new investors such as B Capital Group, which includes Facebook's Saverin, are looking to change that. Likely, what is really needed to move to the next level is a blockbuster hit or two, companies valued at more than $10B, or proven success at making headway into South Asia markets. Investors increasingly see Singapore as a launching pad to Indonesia, Philippines and Vietnam.

Number two, Singapore's R&D investment stands at 2.3% of GDP, compared to 4.5% in Israel. And, the majority of Singapore's R&D investment is from the government (61%), while most of Israel's (95%) is from the private sector. RIE 2020, a government group, has committed $19B to R&D in Singapore by 2020. (**RIE 2020)** Google's recent acquisition of PIE to build a new engineering R&D center is encouraging, and may spark similar operations in Singapore by top tech firms.

Finally, Singapore's 50-year rise from a Third World to a First World country on par with Western Europe standards of life took place for the most part with an inward-looking China that put handcuffs on its estimable talent. That talent has been unleashed to innovate and China is now looking outward to trade and invest. The relatively recent rise and threat of China is one reason for the Singaporean government's investment in business formation and innovation, as it can't count on its role as a global trading hub to carry it through the 21st century. To date, the government has put Singapore on the map as a top-rated startup ecosystem; now it needs the private sector to build on that foundation, create some blockbusters, and expand outward into Asian and Western markets. Ironically, for such a small city state known as a world-class global trading hub, the Singaporean startup ecosystem seems oddly disconnected from the vibrant tech innovation swirling around it.