

INNOVFEST UNBOUND 2017

Wanted: Gazelle startups, not zombies

Singapore ecosystem still lacks deep-tech, globally-oriented startups, with too little going into commercial translation: NUS study

By Jacquelyn Cheok
jaccheok@sph.com.sg
@JacCheokBT

Singapore

SINGAPORE'S tech startup ecosystem has become more dynamic over the last 10 years due to better support infrastructure – but it still needs more deep-tech, globally-oriented startups, and greater commercialisation of technologies, to compete with innovation hubs such as Silicon Valley, Israel and Shenzhen.

This was a key takeaway from a National University of Singapore (NUS) Enterprise study, results of which were showcased on Thursday at Innovfest Unbound 2017. Findings of the study were first presented at The Business Times Leaders' Forum 2017 in March.

Titled "Growth Dynamics of Tech Startups in Singapore", the study polled 530 local startups last year. More than half of them were under three years old, and hired no more than five employees. A quarter of them reported zero revenue in their most recent fiscal year.

Young startups (aged nine and below) were found to have increasingly leveraged ecosystem support infrastructure. Nearly 64 per cent of those polled in 2016 have participated in at least one government scheme, compared to 23.5 per cent of those polled in 2010. Some 19 per cent of those polled in 2016 have received venture capital funding; only 5.2 per cent did in 2010.

Young startups have also become more innovative. Nearly 50 per cent of them polled in 2016 reported ownership of intellectual property (IP), up from 19.6 per cent in 2010. Some 74 per cent of young startups surveyed in 2016 said they have introduced products that were new to the firm in the last 1-3 years, versus 61.5 per cent in 2010.

Notably, the study found a doubling in the number of female founders. About 11 per cent of young startups surveyed in 2016 were founded by females, almost twice the 5.9 per cent in 2010. Nonetheless, the typical founder of a tech startup is found to be male, tertiary-educated and trained in a technical discipline.

Young startups were found to be more innovative when compared to mature startups (aged 10 and above). Some 46 per cent of young startups focused on introducing products or services that are completely new to the world, while only 35.4 per cent of mature startups did.

Wong Poh Kam, director of NUS Entrepreneurship Centre, who presented the findings on Thursday, said: "Startups that develop their core technology in-house and have high R&D spending intensity have a higher propensity to be innovative."

More startups are adopting an outward-oriented growth strategy. Over half of them were found to have established overseas operations. Some 72 per cent derived revenues from abroad, with overseas sales accounting for 26.5 per cent of their total

sales on average. The top three preferred regions for expansion are South-east Asia, China and India.

Despite the growing dynamism and innovation activity, Singapore needs to foster more "gazelles", weed out "non-viable firms" and reduce the number of "zombies" to build a truly vibrant tech startup ecosystem, the study noted.

Gazelles are startups with fast and profitable growth and employs more than 10 people, while non-viable firms either run out of cash before generating much growth, or achieve fast growth initially but fail to sustain operations to reach profitability or get acquired. Zombies are firms that "stay alive but generate little growth and employment".

Prof Wong said that Singapore was not producing enough of deep-tech, globally-oriented gazelles. He cited challenges such as recruiting key talent, a small domestic market and dependence on major customers. "Zombies, on the other hand, don't create many jobs but are kept alive by grants or venture capital funding, and taking up precious resources."

The professor at the NUS School of Business also called for more resources to be channelled to the commercial translation of new technologies. "While so much money is going into research, the amount that is going into translation is too small."

He said that a good first step would be to attract more corporate R&D labs and global talent to Singapore.