

SMEs need open innovation for Fourth Industrial Revolution

By Calvin Chan

THE month of October last year saw two large-scale events gearing local enterprises for the Fourth Industrial Revolution: the inaugural Industrial Transformation Asia-Pacific 2018 (ITAP) was held on Oct 16 and the Future Economy Conference and Exhibition (FECE) was held on Oct 22. Interestingly, the same clarion call for small and medium-sized enterprises (SMEs) to transcend traditional boundaries and collaborate was sounded by the two different ministers who officiated at these respective events.

At the ITAP, Deputy Prime Minister Tharman Shanmugaratnam shared that “to harness the full potential of Industry 4.0, we need to look beyond traditional geographical and industry boundaries ... (this) can be especially useful for SMEs.” At the FECE, Trade and Industry Minister Chan Chun Sing explained why SMEs should come together “to build real capabilities” in their transformation journey through the use of technology.

This call for SMEs to transcend traditional boundaries and collaborate echoes the findings from a case study research. The study traced the journey of a SME in the information-communication technology (ICT) sector, examining how it had thrived and grown amid waves of technological disruption since its inception in 1993.

Collaboration for open innovation

The ICT sector is among the most capricious of sectors. In comparison with more traditional business sectors, adapting to constant change and disruption is a requisite survival capability in the ICT sector. However, similar to SMEs in other sectors, SMEs in the ICT sector are often strapped of much needed resources and capabilities to keep up with changes in their sector. For instance, the case company in our research has forte in offering data analytics solutions.

With the push for Singapore to become a Smart Nation, the market demand is no longer just for plain data analytics solutions, but also expanding to include integrated solutions where Internet-of-Things (IoT) sensors are integrated with more varied analytics capabilities such as video analytics.

While wanting to grow into this market space, the case company found itself handicapped by its lack of video analytics and IoT capabilities.

But it was able to overcome its limitation within a relatively short time by collaborating with other ICT companies with complementary video analytics and IoT capabilities to offer innovative integrated solutions.

What the case company did is known as open innovation, which can be understood somewhat simply as a company collaborating with other companies to generate new innovation by capitalising on the knowledge resources and capabilities of the partner companies.

Essentially, the disruption and change brought forth by the Fourth Industrial Revolution is so rapid and extensive that no singular company has the monopoly of resources and capabilities to independently withstand and rise up against its strike. Open innovation enables companies to overcome resource and capability limitation and gain speed-to-market.

Even large multinational firms such as FujiFilm and Procter and Gamble have embarked on open innovation initiatives in order to keep up with growing competition and changing market demands. SMEs will find it increasingly hard to survive if they continue their traditional self-sufficient and inward-looking modus operandi.

Qualities for successful open innovation

For SMEs to be successful in their open innovation effort, three qualities can be highlighted.

The first quality is humility. SME bosses must have the humility to acknowledge that not all smart people work for them. More capable people, better products and services may be offered by other companies in the same or related sectors.

While intuitive, such humility often failed to surface among successful and charismatic SME bosses. To put it plainly, their ego often gets the better of these bosses. Many SME bosses embarked on the entrepreneurial enterprise driven in part by their ego. Having to eat humble pie and confess inferiority or reach out for help from those who may have

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been one-time competitor is not going to be just a walk in the park.

The second quality of being realistic is thus needed. Some SME bosses may still have discrete perspective of business relationships among firms as being either competitive or cooperative. In the fields of management and economics, a dualistic understanding of such relationships as cooperative has gained traction over the decades.

Cooperation refers to cooperation among business competitors with the intent to achieve mutually beneficial outcomes. SME bosses need to be realistic in recognising that relationships with competitors may not always be purely competitive but are more often cooperative. In such cases, it will be in their best interest to collaborate. If they can allow such reality to reign in their ego, there can yet be hope for their businesses to grow even further.

The third quality is trust. Cooperative relationships often present conflict-of-interest among the partners.

In order to have collaboration among competitors, the interest of each party will need to be addressed and safeguarded. Some binding compact will have to be established, defining how each partners' interest is safeguarded, how each partner will be compensated and how rewards will be apportioned. Only then can there be trust among the companies and for genuine collaboration to happen.

SMEs need to heed the clarion call to transcend their traditional boundary and collaborate with even their competitors in face of the disruption brought about by the Fourth Industrial Revolution.

Such collaboration can result in open innovation, enabling them to overcome resource and capability limitation and gain speed-to-market to grow their business further.

SME bosses should exercise humility in acknowledging their companies' inadequacies, be realistic that cooperation with their business competitors can be beneficial, and be mindful to establish trust among the cooperative parties in order for genuine collaboration to flourish.

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