After living in Japan for seven of the past 40 years, I recently returned for an institutional development project at Tokyo University of Science. Tokyo University of Science is a private university founded in 1881 with over 20,000 students, and is the largest source of engineers and scientists for Japanese industry. The university is also the Japan host for an educational and research initiative called MIT REAP (MIT Regional Entrepreneurship Development Program).

We have been dealing with the following puzzle: Japan was once renowned for creating powerful, global companies, especially in manufacturing industries like automobiles, consumer electronics, semiconductors, and computer hardware. Japanese government and industry partnerships also once promised to revolutionize information technology, with bold initiatives such as the VLSI (Very Large-Scale Integration) Project of the 1970s for semiconductors and the Fifth Generation Computing Project of the 1980s for artificial intelligence. Japanese companies have since developed admirable hardware skills and competence in many aspects of software. But we no longer see bold innovation initiatives in Japan, nor do we see much entrepreneurial activity. What happened?

After opening the country to the West in the 1860s, a first generation of Japanese entrepreneurs organized large industrial conglomerates known as the “zaibatsu”—led by the Mitsui, Mitsubishi, and Sumitomo groups. They centered around mining, trading, and banking. Other firms appeared around World War I, led by Toshiba, NEC, Hitachi, Nikon, Shiseido, Kobe Steel, and Matsushita (Panasonic). These firms brought in Western technologies and business practices. In the 1920s and 1930s, younger Japanese entrepreneurs started more technology-driven companies such as Toyota, Nissan, Fujitsu, Ricoh, and Canon. After World War II, another generation founded Honda, Sony, Nippon Telephone and Telegraph (NTT), and many other new firms.

Sony in particular combined advanced consumer electronics with sleek product designs, and inspired no less than a young Steve Jobs at Apple. Either the Sony Walkman, introduced in 1979, or NTT DoCoMo’s i-mode “feature phone,” introduced in 1999, might have evolved into what became the Apple iPod and iPhone. They did not, as Japanese companies lagged behind in software, networking, and digital technologies. We still see this gap today, despite (or...
perhaps because of) Japan’s penchant for quality, discipline, and detail in computer programming (see “The Puzzle of Japanese Software,” *Communications*, July 2005). As in software development, innovation and entrepreneurship require experimentation and risk-taking, and those attributes do not seem to be highly valued in today’s Japan.

Japan still boasts many of the world’s largest companies and iconic brands. Any visitor to Tokyo can also see that the country still possesses enormous wealth, creativity, and vitality. But interest in launching bold innovation initiatives and establishing pioneering new companies seems to have waned, especially compared to other developed countries. The Global Entrepreneurship Monitor even ranked Japan last among 24 developed countries in terms of entrepreneurial activity. The scarcity of new firms no doubt has contributed to some 30 years of sluggish, and sometimes negative, economic growth.

Recent data on venture capital shows Japan far behind China and the rest of Asia, as well as the U.S., though the Japanese do seem to understand that they need to create more startups that can help grow the economy. Japanese venture funding in 2015 totaled just $629 million. This compares to $59 billion in the U.S.—nearly a 100-fold difference, even though the U.S. has only 2.5 times Japan’s population. The number of Japanese companies going public did reach an eight-year high in 2015 at 98. However, the total number of new Japanese companies being founded peaked in 2006 at 1,359 and fell to 809 in 2015, with stagnant levels of total invested capital. There has been relatively little infrastructure in Japan to promote entrepreneurship, such as in education and innovation centers at universities or private and public startup incubators, although this is changing.

The MIT REAP program likes to analyze regions in terms of “innovation capacity” (I-Cap) and “entrepreneurial capacity” (E-Cap). One measure of I-Cap, for example, is the number of patents a country or region produces given its population. One can also look at relative investment in R&D, networking infrastructure, universities, and other factors. One measure of E-Cap is the number of new firms being established. One can also look at availability of private and public venture capital, availability of entrepreneurship education, or intentions of people at different ages to create new firms.

The Tokyo team is still gathering data, but Japan clearly appears to have the potential to create many more new companies than it does, especially in technology. Data comparing patent rates per population in different countries versus new firm creation shows Japan near the top among countries in this measure of innovation capacity but near the bottom in entrepreneurial activity. I suspect the Japanese can do better because historical data indicates Japan’s low rate of startup creation is a relatively recent phenomenon. There were periods of very high activity following World War I and then again before and after World War II, as Japan modernized, militarized, and then rebuilt its post-war economy.

One reason for low entrepreneurial activity may have been the large amount of capital previously required...
Japan has continued to produce entrepreneurs, but they have not had much access to growth capital or experienced venture capitalists.

The reality is that Japan has continued to produce entrepreneurs, but they have not had much access to growth capital or experienced venture capitalists. Nor have they gotten much encouragement and support from the government and universities, or society more broadly. The situation is now changing, and we should see Japan nurture yet another generation of entrepreneurs. This time, they will probably come more from large firms and a few leading universities rather than from the general population. It is an open question how much impact they will have on Japanese economic growth and venture creativity in the future, but I am hopeful.

References

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