

# How to Accelerate the Development of an Innovation Environment in Japan

By Masakazu Toyoda

From the 1950s to the early 1970s, Japan had a clear goal of "catching up with and surpassing the industrialized countries" and with growth averaging over 10%, it was essential to secure a workforce using a membership system where the key rules were "lifetime employment" and "seniority". As long as companies continued to pursue KAIZEN (Continuous Improvement), to achieve the goal, they could continue to elbow themselves in the global competition.

Unfortunately, however, KAIZEN no longer seems to be sufficient to support the economic future of Japan and the reason is simple. Japan steadily developed itself as a technologically advanced country and has become one of the technological front-runner countries. What is needed now is Innovation with its new ideas, methods, or devices; KAIZEN is falling behind.

So, what can or should be done? Five areas or perspectives are possible.

*First, increase job mobility.* Recently in Japan, there has been a lot of discussion about the pros and cons of a membership-based or a job-based employment system. The membership system with lifetime employment and seniority is slow to adopt new ideas and often stifle technological innovation. Nowadays, not only the electronics and electrical appliance industry, but even the automobile industry needs to innovate. Because of their past successes, the current leaders tend to be averse to change and slow to make decisions despite obvious losses in competitiveness. In a job-based employment system, young people with no seniority but with new and fresh ideas need to be recognized as future leaders in technological development. The time has come for the pursuit of the right person for the right job through a job-based system and stop relying only on KAIZEN.

*Second, Japan needs to invest more in its human resources.* The first example for this relates to the number of Japanese that went to study in the U.S. Twenty years ago, the number was about 36,000, the highest in the world. Now (in 2020), Japan ranks 8th with only 6,500. Why is this? It seems to be due to a lack of incentive for employers to send more Japanese employees abroad because what these people learn does not fit very well into a culture of lifetime employment and seniority. Upon return many quit their companies or governments. The second example of barriers to investments in human resources, could be that senior leaders are not ready to adopt innovative ideas in part because they simply don't understand them. Innovation is not yet recognized as a treasure for a company. Age and seniority should no longer matter. It is time to provide deserving staff with various training opportunities, such as studying abroad, and provide for appropriate positions and salaries according to their abilities and skills, which will contribute to their longer-term retention.

*Third is financial support for start-ups.* In the world's top 50 companies by market capitalization the top ranks are dominated by emerging IT companies, known as GAFAs (Google, Apple, Facebook, and Amazon). Japan's position in those top 50 companies has declined significantly over the past 30 years from 32 in 1989 to only one by 2022. In the U.S., on the other hand,

there are now 32 companies, up from 15 in 1989. It is difficult to find another country where the order of corporate performance does change as much as in Japan. Why are there so few large start-ups in Japan? There may be a variety of reasons, but the main reason is the lack of a support system for start-ups. In the U.S., the management policy of venture capital firms is that 2 or 3 out of 10 projects, should be successful. In Japan, venture capitalists are often hesitant to invest because of much higher success expectations and they often offer loans at not-so-low interest rates, even though start-ups are known to rarely be profitable from the start. In addition to enhancing support for start-up companies, traditional companies need to re-skill with the aim of even changing their core business.

*Fourth is support for regional regeneration.* Few countries are as rich in traditional technologies and tourism resources as Japan. Just like countries that developed exceptional wines, some regional agricultural products in Japan are also truly works of art. As these regions are being depopulated, the time has come to revitalize them with the making of superior products to be disseminated to the world by using information technology (e-commerce). It is also important for innovative farmers to develop new species, less vulnerable to climate change, through DNA technologies, such as next-generation sequencing.

*Finally, fifth is the revitalized role of universities,* especially for the regional universities conscious of local development. Japan needs to strengthen its emphasis on STEM (Science, Technology, Engineering and Mathematics) education. The Japanese education is one of the best in the world in terms of providing equal opportunities. Unfortunately, in terms of developing individuality, innovation, and entrepreneurship, it falls behind many other countries. This is probably because Japan, being reasonably affluent, safe, stable as well as monocultural, values more harmony and collectivity while often discouraging uniqueness. The Japanese educational system differs from other countries by its premature distinction between science and non-science major students. Non-science students will not gain enough exposure to technical or science education (STEM) making them poorer relative to others in the world in terms of the basic requirements or knowledge for the creation of innovative technologies in fields such as digital, information and communications. The current environment surrounding Japan is full of uncertainty and instability. Universities must support entrepreneurship and promote innovation to lead Japan and the world.

From at least these five perspectives, Japan needs to create an environment that will bring about innovation and change. Fortunately, that transformation has already begun and what is needed now is to speed up the process.

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