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Can China Innovate?

BY JOHN JULLENS

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China is on track to become the world's largest economy within the next 20 years or so—a position it held during most of its 2,000 years of recorded economic history. But what kind of economy will China be? Will it remain a low-cost producer of manufactured goods for the rest of the world, or will it learn to develop higher value-added products and become a developed economy itself? In other words, will China be another Brazil, which has remained stuck at middle-income levels for more than 50 years? Or will it be more like its East Asian neighbors—Hong Kong, Japan, South Korea, and Taiwan—who have all been able to escape from the so-called middle-income trap?

Most observers believe that the key to China's transition from a low-cost to a high-value economy is whether it can learn how to innovate rather than merely imitate. Beijing itself subscribes wholeheartedly to this view and has tried to stimulate indigenous innovation through heavy investments in Silicon Valley–like science parks, green energy, other technologies with leapfrog potential, and, of course, industrial policies designed to “encourage” technology transfer from the West. In fact, China's leaders have obsessed about catching up with Western technology ever since China's sudden and ignominious fall from grace in the late 19th century. And its repeated inability to catch up—from the Tongzhi Restoration's unsuccessful attempt at eco-

nomical and military reform in the 1870s to Mao's disastrous Great Leap Forward in the late 1950s—continues to fuel a palpable sense of shame and resentment that informs much of China's policies and zeitgeist today.

Despite its enviable status as the third-largest R&D spender in the world (behind the United States and Japan), China's efforts to become a global innovation powerhouse have thus far met with mixed success. Its industrial policies have produced more failures than successes, and while the number of patents filed domestically has risen impressively, few are registered elsewhere, casting doubt on their true value. Even China's most innovative companies—such as Haier, Huawei, and Lenovo—are far better at developing low-cost versions of existing products than creating real breakthrough innovations. In fact, China recently fell one spot on the Global Innovation Index to 35th, behind not only perennial leaders such as Finland, Switzerland, and the United States, but also other Asian countries, such as Hong Kong, Japan, Singapore, South Korea, and even Malaysia.

Experts have suggested several explanations for China's innovation struggles, including its conformist Confucian culture, rigid education system, rampant patent infringement, and heavy-handed government interference. Yet the issue isn't how China can overcome these struggles and learn to innovate. The real question

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is whether innovation is truly required for Chinese companies to succeed—at least for the next decade or so.

First things first. The surprisingly oft-heard charge that the Chinese are somehow culturally incapable of innovation is, of course, nonsense. Several of the most important inventions in the history of mankind came from Confucian China, including the compass, gunpowder, paper, and printing. In addition, Chinese researchers and scientists today are employed in senior innovation positions all around the world, including Silicon Valley. The related charge that China's education system is too focused on quantity and rote learning as opposed to quality and creativity is probably fair, yet Chinese students habitually outperform their Western counterparts on the Organisation for Economic Cooperation and Development's math, science, and reading comprehension tests.

Far more convincing are the arguments that rampant patent infringement and pervasive government interference are stifling Chinese innovation. For example, China's failure to adequately enforce intellectual property laws not only hurts foreign multinationals, but also creates a disincentive for its own entrepreneurs to invest in long-term research and product development. In addition, the government's generous support for indigenous innovations tends to favor bureaucratic state-owned firms at the expense of more entrepreneurial private firms and investments in areas with limited market potential (such as electric vehicles).

However, these are typical challenges for transition economies and will likely disappear over time. For example, two-thirds of MNC respondents to Booz & Company's latest China Innovation Study said that some of their Chinese competitors are already at least as

innovative as their own companies. Chinese companies also tend to be less afraid of making mistakes and far more ruthless in abandoning failing innovation projects quickly. And, as they become more innovative themselves, Chinese companies are increasingly taking legal action to protect their intellectual property, not just in China, but elsewhere as well.

More important, the question itself (can China innovate?) isn't nearly as important and urgent as many observers believe, at least not with respect to breakthrough innovation. The reason is that most Chinese companies operate in globally mature industries and, first and foremost, need to catch up with their global counterparts to remain competitive, especially as China continues its transition toward a market economy. This is a gradual and sequential process of developing world-class capabilities over time, not unlike a child having to learn how to crawl before it can walk and eventually run.

In other words, at this stage of its economic development, China needs capable companies far more than innovative companies. Having mastered the skills to assemble relatively simple products for foreign multinationals, Chinese companies next need to learn how to develop and manufacture more complex products themselves. In addition, they'll need to become much more proficient at higher-order organizational capabilities, such as strategy formulation, multi-brand management, relationship marketing, systems integration, and performance management.

At the same time, they should concentrate their innovation efforts primarily on adapting products for local markets, developing more innovative processes, and adapting their business models. These efforts will help them accelerate down the supply curve and take advan-

tage of China's huge size and often unique local market conditions, which collectively form a natural barrier to entry against more capable and better resourced multinationals from developed countries. This will be far more effective than trying to emulate Silicon Valley's disruption-focused new product innovation model too soon. In other words, they should aspire to be more like Hyundai and Caterpillar, which compete primarily through incremental innovations to existing products, rather than like Apple or Google.

Only after they've become truly capable and world-class should Chinese companies shift their primary focus to cutting edge R&D and breakthrough new product development. Until then, a few more Haiers, Huawei's, and Lenovos would do just fine. +

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