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The Real China Threat: Innovation

Perspective by Waterstone Management Group

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The Real China Threat: Innovation

Recent news of a slowdown in China combined with stock volatility and devaluation spooked markets worldwide and raised concerns that China might derail the fragile global economic recovery.

While not baseless, these fears were largely overblown. The economy, in moving away from dependence on export-oriented manufacturing and toward domestic consumption and services, is progressing—albeit more slowly than expected, which is probably understandable given its size and complexity. After appreciating substantially along with the U.S. dollar during the past year, the renminbi was overdue for an adjustment. The cause of the loudest outcry was China's stock market, which is still known by insiders to be immature in terms of corporate quality, governance, and investor behavior. For the foreseeable future, volatility within this market should be regarded as the norm rather than the exception.

Although somewhat of a false alarm, the surge in reaction provides an opportunity to recheck focus and ensure attention to the real threat to American technology companies, which is not the economic churn but the emerging competitive contest in innovation.

Chinese Inventiveness Emerging

China is making a strategic pivot toward innovation, and it will be game-changing. Chinese companies regard innovation highly and are investing huge amounts to build their capabilities. Huawei, a global leader in telecommunication equipment, for example, spent over $6.6 billion in R&D in 2014, a 29 percent increase over the prior year and an amount equal to 14 percent of the company's annual revenues. The Chinese government is also focused on innovation, spending billions of dollars in platform industries, such as micro-processers, in order to decrease the country's dependence on foreign suppliers. Additionally, the global recession made it possible for Chinese companies, often together with the government, to purchase distressed European and American companies and their technologies. This has further accelerated the shift toward greater innovation in high-priority industries like automotive, energy, and telecommunications.

Chinese companies are investing huge amounts to build their capabilities while the government is investing billions of dollars in platform industries to decrease dependence on foreign suppliers.

Just 25 years ago, Chinese companies could barely produce products in a high-quality, repeatable fashion. That is, of course, no longer true. Chinese production now includes sophisticated products requiring precision manufacturing. Not surprisingly, China's dominance in manufacturing has also given rise to substantial innovation in the process arena. As foreign firms moved more of their product development to China to shorten lead time for product development and related production line changes, Chinese suppliers and managers learned the value of process innovation and essentially collapsed the innovation gap between R&D, product development, and production. In many cases, R&D activities that were previously kept separate or even out of the country were transferred to Chinese production centers, further elevating Chinese capability. Examples abound in semiconductors, automobile components, and electronics. With this hollowing-out of know-how, American companies have created an able competitor in China—and inadvertently denied themselves the ability to retain their competitive advantage.

Example American Firms Boosting Tech Abilities in Chinese Operations

Importantly, China is no longer solely producing products invented by others. Its companies routinely make products invented in China by Chinese engineers. Some of these products look like foreign products—and some might well be copies, as many American companies contend—but a sizable number are now original designs that reflect the nature of the Chinese local market. Absorption of foreign technology—via observing, learning, and emulating—has proven a winning strategy for China. Eager to see the industry move to a stage of greater indigenous and more fundamental innovation, the Chinese government is now seeding incubation labs, repurposing entire districts to enable concentration on specific industries, and commanding state-owned Chinese companies to restructure operations.

The effort appears to be paying off. More Chinese companies are developing a greater number of new products and new services than ever before, and they are filing patent applications to protect their hard work. China's patent bureau reported that more than 600,000 patent applications were published in 2014, and a recent study by Thomson Reuters showed that China's invention production began to increase dramatically in 2012. Notably, annual applications in China are now more than 50 percent higher than they were in 2012 and have surpassed the annual applications of both the U.S. and Japan, which remain at 2012 levels.

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To be sure, about two-thirds of China's patents are regarded as incremental improvements to existing inventions rather than fundamentally new inventions, but the number and share of truly new inventions are both increasing. Perhaps the best gauge of Chinese innovation involves the publication of original scientific research in juried, peer-reviewed journals. Such research often leads to the filing of original invention patents and the commercialization of discoveries. According to Nesta, a British think tank that recently analyzed China's innovation record, this number has surged in recent years, with Chinese researchers now commanding a role in approximately 35 percent of all published papers. In certain fields like material science and health sciences, the share is even greater.

Well-known firms like Tencent, Baidu, and Alibaba have already been recognized as leading innovators in the internet field. Others include Haier in appliances, Xiaomi in hand-held devices, and ZTE in network gear. All have distinctive stories of how innovation gave rise to the company or helped the company attack a new market. The latest buzz surrounds Tencent, which created WeChat, a viral messaging and ecommerce platform with over 500 million users just 5 years after its launch. The tales of innovation are spreading rapidly, creating a new entrepreneurial class that will soon rival that of Silicon Valley in number if not in longevity. Moreover, the reach of these companies is rapidly expanding. Having achieved success in China, each of these innovation champions is now building global operations, including R&D centers in the world's most creative hotspots in the U.S., U.K., Germany, Italy, and Israel.

American Companies Unprepared for the Change

Most American companies continue to underestimate the strength and capabilities of Chinese competitors. Many managers fall into the trap of branding Chinese innovation as copycat or stolen. These managers fail to recognize that, regardless of how the innovation capability was obtained, it will eventually lead to more original inventions, which is the key reality. Some managers continue to focus on the conventional names and historical competitors, not giving due credence to the upstarts in China. This has already proven to be a mistake in numerous areas. For example, Xiaomi, which has commandeered one-sixth of the market for smartphones in China in less than five years to become the market leader, is now going global and gaining traction in a wide range of additional high tech applications.

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Other long-standing concerns, while understandable, impede awareness and block action. Intellectual property rights is a case in point. The field certainly continues to be problematic, and remedies for patent infringement remain woefully inadequate. As a result, many managers too readily discount recent structural improvements in Chinese patent law, which are worth understanding and can lead to more informed research and development strategies. Another example concerns the value of staying aware of key local developments on standard-setting, which signal early policy changes in government-led reform efforts. Engagement and sustained listening of this kind, while tedious at times, can contribute to important incremental changes in one's innovation approach vis-à-vis Chinese firms and add up to sustainable advantages.

In an effort to both obtain more control and also better protect their intellectual property, many, if not most, American technology companies have moved away from using joint ventures in China, preferring the independence of wholly owned entities. While this tactic may seem logical at first, it can also cut off access to important market and competitor knowledge that local partner-companies obtain so readily. Additionally, in China, government preferences that flow to domestic players can sometimes be shared with foreign partners. Without local partners, American firms are generally less advantaged in the market. We all know the old Chinese adage of keeping your friends close and your competitors even closer.

Recommended Actions

In the face of China's burgeoning innovation capability, managers of American technology companies should take the following actions:

1. **Broaden Your View:** Broaden your firm's strategic view substantially to include Chinese companies, highlighting possible new players, partners, vendors, and competitors

2. **Understand Chinese Competitive Dynamics:** Model the future competitive dynamic to include consideration of new competition, new business models, and new centers of innovation in China

3. **Re-assess Your Current Intellectual Property:** Test your current intellectual property rights in light of China's rise, asking how you could better establish your IPR footprint in China, better leverage Chinese partners, and better hedge against Chinese invention

4. **Develop Strategic Options for Innovation:** Create a 20-year vision of your innovation landscape, defining where innovation will take place, who will drive invention, how product and service dimensions and relationships will change, and how you will protect your innovation

5. **Re-consider Joint Ventures:** Explore renewed and targeted use of joint ventures as a means for reinforcing your wholly owned ventures, focusing on specific partners for specific market segments rather than adopting a one-size-fits-all approach

6. **Tap Chinese Experience:** Bring Chinese managers to headquarters to brainstorm how lessons being learned in the hypermarkets of China can be re-deployed to America and other markets to either re-ignite growth or defend current growth scenarios that resemble China (e.g., India)

7. **Engage the Board:** Educate your board of directors on the severity of the China challenge—any funding will require the board's involvement, and the innovation threat from China will only grow noisier and more confounding over time

If you are searching for a way to start the discussion with your management team, you might begin with a question: If over half of the R&D in my industry is eventually located in China, what are the implications for my own company's R&D program, my talent base, my business model, and my shareholder returns? You might be surprised by the revelation and the insights that follow.

Waterstone Management Group helps technology companies and investors create measurable value by identifying and capitalizing on disruptive growth opportunities and driving excellence in Services, Cloud, and Customer Success performance. To learn more about China and innovation, please contact:

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