

China's rising Internet wave: Wired companies

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After a massive rise in Internet use by consumers, adoption by Chinese companies is catching up with that of the developed world.

Until recently, China's Internet economy was consumer driven. The country leads the world in the number of Internet users, and Chinese enterprises deploy sophisticated e-commerce strategies. The same companies, though, have lagged behind the United States and other developed nations in using the Internet to run key aspects of their businesses (Exhibit 1).

That's changing. China's companies are quickly climbing the adoption curve. Their increased digital engagement will not only give the economy a new burst of momentum but also change the nature of growth. China sorely needs a new leg of expansion because the industrial growth of recent years—driven by heavy capital expenditures in manufacturing—will be difficult to sustain. The Internet, by contrast, should foster new economic activity rooted in productivity, innovation, and higher consumption.

For global companies counting on China for continued growth, the new Internet wave will change the nature of competition: it will enable the most efficient Chinese companies to grow more quickly, shine more transparency on business and consumer markets, and create conditions for a better allocation of capital.

A new McKinsey Global Institute report looks broadly at the coming transformation.¹ Our research shows that Chinese companies are investing heavily in the building blocks of the Internet economy: cloud computing, wireless communications, new digital platforms, big data analytics, and more. Across six sectors (Exhibit 2), which accounted for 25 percent of Chinese economic activity in 2013, we find that increased Internet adoption could add 60 billion to 1.2 trillion renminbi (about \$10 billion to \$190 billion) in GDP to individual sectors by 2025. About one-third of these gains will come from the creation of entirely new markets, the remainder from productivity gains across the value chain. When we scale up this level of growth across all sectors of the economy, we find that Internet adoption could add 4 trillion to 14 trillion renminbi to GDP by 2025. The Internet is also expected to contribute 7 to 22 percent of total GDP growth from 2013 to 2025.²

As the new technologies cascade through markets, less productive business models will cede ground to more innovative ones. Companies will realize broad productivity gains in operations by automating processes, streamlining product development, and digitally reinforcing their supply chains. Similar improvements will take shape in marketing and distribution as sales organizations deploy the Internet to expand their reach and enrich customer interactions. Consumers and businesses alike will benefit from lower prices and transaction costs, as well as better goods and services. And in a significant shift, a more wired world will allow China's entrepreneurs and small and midsize businesses—often handicapped by lower productivity—to scale up rapidly at lower cost.

Five implications

More specifically, our exploration of how Chinese enterprises are integrating the Internet into their processes suggests five implications for competition and market dynamics:

¹ For the full McKinsey Global Institute report, see *China's digital transformation: The Internet's impact on productivity and growth*, July 2014, on mckinsey.com.

² Our estimates are based on high and low levels of corporate adoption.

Exhibit 1

China's Internet has been more consumer than enterprise driven.

2013		China	United States
Consumers			
Internet usage	Users	632 million ¹	277 million
	Penetration	46%	87%
E-tailing	Market size	\$295 billion	vs \$270 billion
	Share of retailing	7–8%	6%
Largest e-commerce platform		Taobao (including Tmall) ²	eBay
	Items	800 million	vs 550 million
	Active buyers	231 million	128 million
Suppliers			
Enterprise cloud-adoption rate		21% ³	vs 55–63% ⁴
Internet-adoption rate among small-to-midsize enterprises (SMEs) ⁵		20–25%	vs 72–85%

¹ As of July 2014.² In addition to its consumer-to-consumer (C2C) marketplace, Taobao owns a business-to-consumer (B2C) platform known as Tmall.³ McKinsey China CIO survey, 2012.⁴ Rates vary depending on types of cloud-computing solutions.⁵ Positive survey responses for Internet use in procurement, sales, and marketing.

Source: CNNIC; International Data Corporation; iResearch; Kable Global ICT; National Small Business Association; Pew Research Center; Strategy Analytics; US Census Bureau; McKinsey Global Institute analysis

1. A burst of digitally driven productivity

China's industrial expansion will probably slow down from its levels during the past decade, and companies are struggling with excess capacity. Many are looking to the Internet for a new set of tools to engineer productivity improvements. In the automotive sector, one example is Anji Logistics, a subsidiary of SAIC Motor. Using sensors and communications capabilities—the Internet of Things—the company manages logistics for automakers and other OEMs, helping them optimize inventory levels and transport routes.

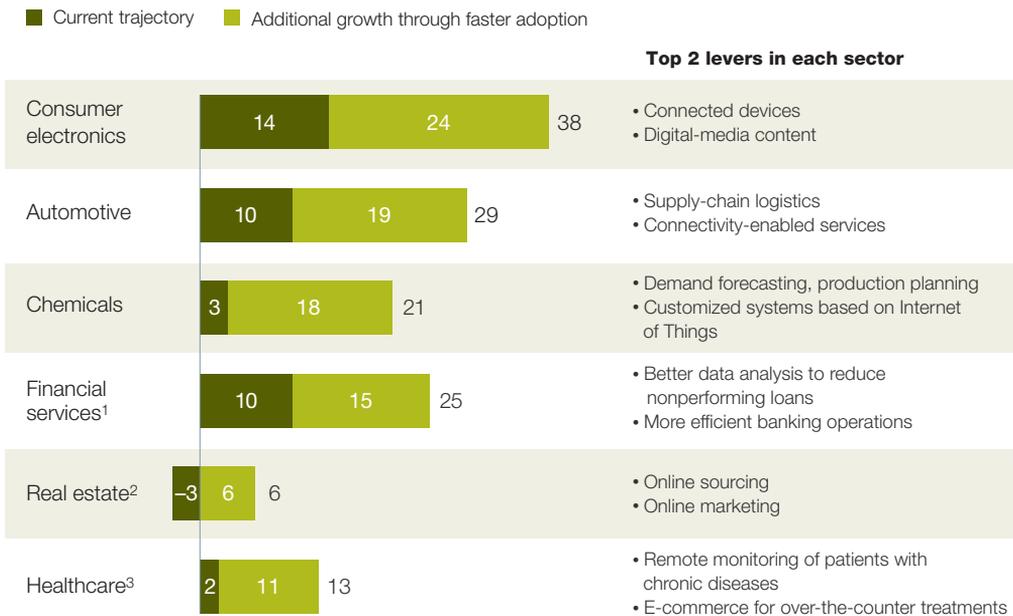
Our findings, in fact, indicate that supply-chain and operations improvements will be the most potent contributor to Internet-led value gains in autos.

China's chemical industry, while still in the relatively early stages of Internet use, is exploring ways to employ big data on inventory levels and shipments to improve forecasting and product planning. In China's dynamic real-estate sector, online markets operated by players such as Anjuke and SouFun are streamlining information-search and transaction processes, thus shaving commissions and bringing down prices for customers. Healthcare providers are implementing remote patient monitoring to stretch their footprints to underserved patient populations while substantially saving costs for patients with chronic disease.

Exhibit 2

The adoption of new Internet applications may have a substantial economic impact in key sectors of China's economy.

Potential contribution of new Internet applications to China's GDP growth, 2013–25, % of sector GDP growth



¹ Does not include the effects of more efficient capital allocation on the rest of the economy.

² Reflects either a potential drop of -3 caused by Internet-related shifts in demand for commercial real estate or a potential additional growth of +6.

³ Refers to reduced healthcare expenditures.

2. Greater access to financing and lower risk

An underdeveloped financial infrastructure has constrained some areas of China's economy. The growing use of Internet platforms, combined with increased data and analytics capabilities, means that China's financial institutions can allocate their scarce resources more effectively and expand the economy's base of borrowers and investors.

One of China's most significant gaps is in lending to small and midsize enterprises. Data about a growing number of companies and new analytics tools are giving banks better ways to target risk, thereby lowering the incidence of nonperforming loans and increasing the confidence of lenders. Digitally mediated transactions, meanwhile, are reducing lending costs—another benefit for smaller business borrowers.

A parallel trend is unfolding in consumer lending. Digitization allows banks and other credit suppliers to monitor huge numbers of transactions and to evaluate the risks posed by borrowers more effectively while expanding loans. Regulators are authorizing pilot programs in online lending by newly formed private players. Technology companies such as Alibaba and Tencent are using access to massive amounts of data to lower lending risks and expand the horizons of consumer credit. Our research suggests that better risk management could create the greatest amount of additional value in China's financial services.

Securities firms, insurers, and banks are building mobile and online channels to distribute new and more specialized products to a long tail of investors. Online discount brokers, for example, are using Internet platforms to lower commissions on investment products. This development has given rise to popular products such as Yu'e Bao (created by Alipay), a money-market fund that lets consumers easily move excess savings to accounts bearing higher interest. Online mortgage lending is taking hold as well, expanding the base of home buyers.

3. A growing base of consumers and richer interactions

Social technologies and new digital platforms ease the way for richer interactions with customers and allow companies to meet demand from a more diverse range of buyers, often in new or hard-to-reach markets. Jiangsu Sanfangxiang and Shandong Chambroad, early

movers among China's domestic chemical manufacturers, are using e-commerce platforms to cut administrative and transaction costs and to provide a base for closer collaboration with their customers. Following the pattern in the B2C realm, China's B2B players are using Internet technologies to expand their markets from large cities to smaller ones. Chemical manufacturers in the agricultural sector are sizing up the potential for big data to help farmers monitor crop conditions in real time, allowing these companies to customize their offerings of products to increase farm yields.

Automakers, meanwhile, are finding that popular vehicle-shopping sites, such as Autohome and BitAuto (Yiche.com), help them to identify and inform likely car buyers. That is proving to be an important tool for increasing conversion rates among undecided shoppers. Chinese car buyers, like those in the West, are demanding systems offering GPS, maintenance alerts, and diagnostics that not only improve the customer experience but also offer robust data to manufacturers for improving products and marketing efforts. In addition, Internet sites are sparking China's online used-car markets, where companies like Cheyipai and Youxinpai are bridging the information gap and helping dealerships source quality used cars.

Across consumer markets, companies are using China's established social and search sites, such as Baidu, to mine data on ever-changing tastes and customer preferences. Their ability to expand delivery through mobile channels is growing as well. In real estate, China's big residential-property developer Vanke has experimented with location-based advertising, using Tencent's advertising platform, Guangleadvertising, to build awareness among potential buyers. Vanke has also partnered with online marketplace Taobao to offer promotional coupons to purchasers. In healthcare, advanced communication technologies permit China's first-tier hospitals, via regional health-information networks, to extend high-quality treatment to underused lower-tier hospitals by linking patients to medical specialists.

4. Lower barriers to innovation

The Internet blazes new pathways to innovative products, services, and business models. Digitally enabled innovation will add a new dimension to the efforts of Chinese companies, large and small, to compete as they climb the learning curve.

In consumer electronics, companies are gaining familiarity with open-source processes that can transform R&D. These processes widen access to innovative designs that can differentiate products and get them to market faster. Mobile-device maker Xiaomi has built a community of fans, known as *mi fen* (a play on words that means rice flour and is short for Xiaomi fan), who provide feedback and recommendations for smartphone designs, consumer-friendly features, and other improvements. Computer maker Lenovo held a *chuang ke*³ competition where 50,000 participants contributed close to 100,000 product ideas.⁴ Some participants even developed their products with funds raised on crowdsourcing platforms. Volkswagen's China operations, meanwhile, launched the People's Car Project to develop new concepts. To shape product innovations, chemical manufacturers are starting to share information with suppliers and customers, hoping to enlist their expertise.

As Internet capabilities are integrated with a growing number of products, new business models are arising. China's fast-moving Internet-TV market is a case in point. Because Chinese consumers are highly price sensitive, vendors often make little money from hardware. Instead, they are looking for ways to use digital platforms to create "multisided" markets where revenue streams flow from services such as media content and advertisements. LeTV, for instance, provides its Internet-TV set-top-box hardware for free but charges 490 renminbi for a 12-month subscription. This model has sparked new collaborations between China's TV manufacturers and content providers seeking to bundle services with hardware offerings. Some companies are swiftly turning to successful new models pioneered beyond China's borders. Following the trend in Western cities where popular smartphone apps have revolutionized taxi services, residents of China's major urban areas now use Didi and Kuaidi to summon the nearest available cab.

5. New competition as the Internet empowers entrepreneurs and small businesses

Internet technologies lower entry barriers across sectors, giving unexpected competitive power to new players, from online insurers

³ A combination of two Chinese characters: *chuang* indicates turning ideas into reality; *ke* means groups of people gathered for the same purpose.

⁴ Tao Jing Jie, "Promoting technology innovation: Lenovo *chuang ke* competition launched," *CNET News*, January 19, 2014, cnetnews.com.cn.

without field agents to mobile-service providers with capital-light models. This new competition may render the business models of some established players obsolete, weeding out companies that can't adapt. In China, businesses with fewer than 1,000 employees contribute 70 percent of GDP.⁵ Yet for the most part, they lag behind bigger players in productivity. Going digital will neutralize some of the disadvantages these enterprises face, by helping them manage supply chains more effectively, cement customer loyalty, lower transaction costs, and achieve wider distribution.

One example of the trend is appliance maker Xiaogou. Originally lacking the scale or capabilities to build up a network of brick-and-mortar distributors, Xiaogou shifted to the exclusive use of online platforms for marketing and distribution. We expect that a growing number of smaller Chinese enterprises will eventually become “micromultinationals” by operating from new platforms, particularly as the number of digitally savvy Chinese entrepreneurs continues to grow.

Managing in the new environment

Since the Chinese market lies at the heart of growth strategies for many global companies, senior executives must ready them to compete on the new terrain. Four principles will help define their response.

Zero in on the customer. Given the size and rapid growth of China's consumer market, companies have often prospered by focusing on large-scale production and mass-market channels. Looking forward, customer needs will become increasingly fragmented. To meet this challenge, companies have to widen their choice of suppliers, glean the more detailed customer insights available from better information, and ultimately produce a broader and more complex portfolio of products targeted to what consumers really want.

Consider the competitors you don't know yet. The Internet has unleashed a new era of intense competition, and companies will need to be fast and flexible to stay ahead. Competition can emerge

⁵ *Report on the nationwide development of small and micro businesses*, State Administration for Industry & Commerce of the People's Republic of China, 2014, saic.gov.cn.

rapidly from unexpected corners, and as barriers between sectors become blurred, start-ups based on digital models will gain momentum. Leaders will need to commit resources to the digital transformation to maintain their position. Although the cost of these efforts will strain companies in the short term, they will open the way for long-term benefits.

Retool operations for a digital age. Agility is the key word. Across the new Chinese landscape, Internet capabilities will require much more than a focus on customer-facing operations. A new operating strategy will integrate Internet technologies into back-office functions, production processes, and supply chains, to achieve new efficiencies. CIOs and other technology specialists will need to change their mind-set about big data, adopt multichannel models, and champion operational improvements.

Drill down on your organizational capabilities. Across China, companies are facing talent shortages for highly specialized roles in big data analytics, particularly in sectors such as finance, where changes are coming fast. Meantime, labor-intensive industries will need to attract more knowledge workers as digital technologies become “wrappers” for many goods and services. Outside hiring to attract new talent will be needed, but companies must also be creative about developing their talent pipelines, exploring industry collaboration to create skills in short supply in China, and seeking out partnerships with universities.

The open-ended characteristics of Internet technologies will challenge traditional business models that keep value-chain activities in-house. The next phase of change will tax the capabilities of companies in China, and executives should be open to collaborative ecosystems involving partnerships with upstream suppliers, downstream vendors, and consumers. China’s increasingly wired landscape, in short, is changing the face of business there and challenging the strategies even of companies that have prospered through earlier waves of tumultuous growth. ◉

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