

Asia Now

2018

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ILLUSTRATION BY JON REINFURT

THE INNOVATION ISSUE

No longer a place where everything is produced but nothing is invented, Asia is riding a wave of homegrown innovation with long-term investment implications.

Innovation is a beguiling concept for investors. It promises great change and great profit opportunities, yet often at the cost of increased risk and uncertainty. Sometimes it requires a leap of faith. Understanding innovation, however, gives committed active investors a potential advantage over passive or systematic investors. Many of the issues that innovation brings to the forefront are inherently unquantifiable. We have to make use of our best judgment, our knowledge of history and perhaps just good old common sense to navigate the opportunities and the risks involved.

Asia used to be viewed, with some justification, as a region that did not innovate. Imitation was rife. Some companies would watch, learn and imitate the best. Copying better ways of doing things helped to propel productivity and wage



Matthews Asia

Investments involve risk. Past performance is no guarantee of future results. Investing in international and emerging markets may involve additional risks, such as social and political instability, market illiquidity, exchange-rate fluctuations, a high level of volatility and limited regulation.



NEW REALITY

Asia is riding a wave of innovation that extends beyond technology to new business models, education and economic reforms.

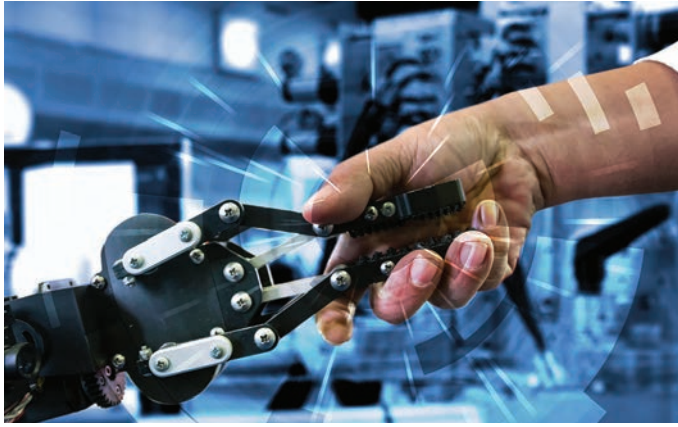
increases across the region in past decades. But, as Asia has grown and its populations have become richer and its citizens have witnessed what wealth creation can do for living standards, scientists, business leaders and politicians alike can see the value of true innovation—giving rise to the region’s own brands, intellectual property and market structures.

Now, we are starting to see advances across different areas, particularly in technology and health care, but also in the way developing countries initiate reform programs and improve on the ways in which other Asian countries reformed in the past. Banks in India, looking to serve millions in rural areas, are skipping brick-and-mortar local branches in favor of smartphones. South Korea is doubling down on R&D spending to boost its battery cell and semiconductor businesses. Japan, with its aging population, has long been at the forefront of mechanization and the robotization of manufacturing. Researchers in China are mapping genomes of entire populations to expedite cancer research and drug development. Novel business models are arising based on

the different ways in which Asians live their lives compared with Americans and Europeans. Access to financial markets and the desire of governments to democratize credit have led to new solutions. The increased spending power of Asia’s workers has led to a rise in domestic brand names. Multinationals can no longer rely on a halo of quality or exclusivity around their technology or brands when domestic businesses are emerging as true competitors, better attuned to the preferences of the consumer—even sometimes with better technology. The excitement is infectious! And as these new industries arise, traditional businesses fall by the wayside.

Rapid innovation can bring challenges, of course. Regulation often lags behind technology. We have seen the issues around data privacy with some of the online giants in the U.S. How will Asia deal with these issues? As innovation evolves, just how real are the opportunities? Exciting as they may seem, huge amounts of money may be invested on the basis of little more than speculation. This excitement may be good for the overall speed and direction of research and development, but as investors, are we going to benefit? The population of Asia as a whole may benefit, but will we profit?

Although innovation may hurt many traditional companies, other companies may not be as vulnerable to new markets. They may be able to adapt. There may still be much value in traditional sectors in tandem with the advances. Win or lose, it’s a complex environment of new and old industries interacting often in stark ways but also sometimes in more subtle ways that can be win-win. We try to sort through the landscape of innovation and reform in Asia. How do we think about some of the new opportunities at Matthews Asia? Which are more established businesses? Which are more speculative? As active investors focused on Asia, we have always believed that the benchmarks are too backward-looking. And many of the exciting trends we see today will be reflected in the major regional benchmarks only in years or decades to come. In the meantime, we must temper any excitement with a level-headed investigation of the various types of innovation happening in Asia today and try to find the best investment opportunities.



JAPAN:

Man Meets Machine

Japan's latest innovation in industrial automation? Humans are replacing robots on assembly lines.

Japan's vaunted leadership in industrial automation is no accident. It was borne of necessity. Perpetually squeezed by both economic and demographic forces, the manufacturing sector has long relied on innovation to survive. The continual quest for efficiency made Japan's manufacturing methods a model for other countries to emulate. Most significantly, it helped propel Japan to global leadership in robotics.

Today, Japan is finding a middle ground between automation and skilled human labor. Japanese manufacturers, led by the country's largest automakers, came to realize that overreliance on robots was reducing the quality of output. People and machines working together could improve quality while enhancing efficiency.

The people working alongside robots are not traditional low-skill factory workers, but craftsmen whose job is to continually train the machines to do their jobs better. The commitment to continuous improvement and to doing work of high quality are the heart and soul of Japan's manufacturing philosophy—and decidedly human traits that machines cannot replicate. Manufacturers felt they were losing the benefit of insight that skilled craftspeople bring to the production process. After putting certain critical tasks back into human hands, Japan's leading automaker reported a significant drop in waste, increased efficiencies and reduced costs in several phases of the production process.

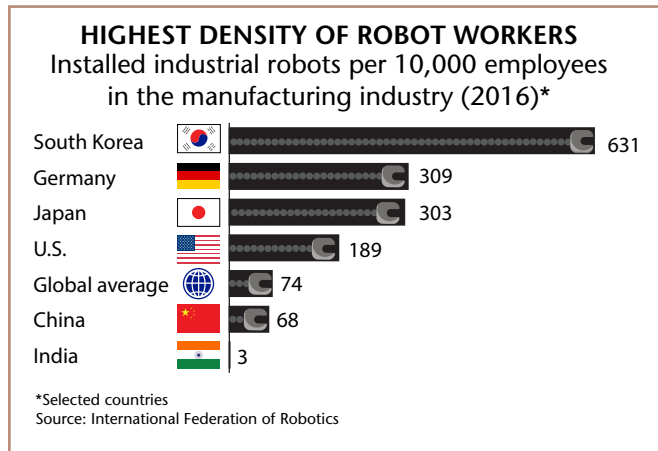
There is still an important role for robots that can perform repetitive tasks at high speeds, particularly as Japan's

workforce ranks have thinned due to aging. As a percentage of its total population, Japan's working-age segment (15 to 64) peaked in 1992¹ and has been declining ever since. And Japan is not alone in this regard. The U.S. working age population appears to have peaked in 2008, and China's in 2011.² Under current projections, many countries will be facing the same challenge of age diminishing their workforce ranks.

The rate of production automation is accelerating around the world. The number of installed industrial robots in manufacturing rose from 66 units in 2015 to 74 in 2016, according to the International Federation of Robotics. Much of that growth was fueled by the global auto industry. China has seen the most rapid

adoption, with density rising from 25 to 68 units between 2013 and 2016. Japan remains the dominant supplier of robotic technology, at 52% of the global market with a production capacity of 153,000 units in 2016.³

A key reason for the worldwide success of Japanese automation companies is not only in producing high-end hardware, but in the value delivered to buyers through the adoption, installation and operation of robotics systems overall. And while robotic technology has enabled manufacturers to increase production with fewer workers, it has also created demand for a new type of human skill: the ability to train and supervise robots.



1,2 World Population Prospects: The 2017 Revision, Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat
3 International Federation of Robotics, November 23, 2017

CHINA: *Injecting Life into Biotech*



An urgent quest to conquer cancer is fueling a surge of scientific research and investment capital in China's life sciences industries.

Crisis is often the catalyst for innovation. In China's case, a staggering rate of cancer combined with a dearth of available treatments compelled the country to develop its own solutions. Now, China is on an ambitious path toward becoming a world leader in pharmaceutical innovation, and immunotherapy for oncology—China's largest unmet need—is garnering the most interest from scientists and investors.

China reportedly had 4.3 million new cancer patients in 2015, the most recent year for which statistics are available from the National Central Cancer Registry. However, with weak drug approval standards and a lack of pricing transparency, few international immuno-oncology drug developers were willing to focus on China as a key market. At China's level of GDP per capita, the government realized that poor access to quality medicine is no longer acceptable. We have seen a wave of reform take place in the past three years to bring China up to the world's standards in drug discovery, development and commercialization. These reforms have served to incentivize both domestic and international drug developers to take China seriously as part of their global market.

Reforms have not been limited to central government initiatives for greater transparency and faster drug approvals. Even local governments are steering subsidies toward the development of innovative medicine. In the eastern province of Jiangsu alone, the government has a plan to sequence 1 million people within two years to accelerate discovery of genetic mutations in human disease. After a big data pool is collected, the latest deep learning algorithms will be activated to try to uncover new ways to conquer cancer.¹

Investors have taken note of China's rapid regulatory and scientific developments in immuno-oncology in the past few years. The country's biotech space has seen a significant infusion of venture capital and private equity investment. The Hong Kong stock exchange, meanwhile, recently loosened requirements for biotech listings to help boost funding

“China is on an ambitious path toward becoming a world leader in pharmaceutical innovation.”

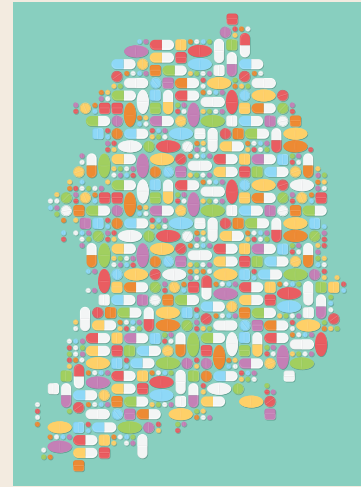
for early-stage companies and speed up drug development. This may create a short-term frenzy in biotech investing, and inevitably some startups will fail. There are reasons to be optimistic, however, about the long-term development of the biotech market in China, given its large patient population and rapidly developing oncology talent pool. Platform companies, service providers and producers of globally competitive immunotherapy molecules stand to benefit from this “great leap forward” in China's biotech century.

Within the biotech realm, truly innovative biologics drugs hold particularly significant upside potential. Biologics account for just a small percentage of total prescription drug spending in China compared to the U.S., where patients have better access to the latest cancer treatments.² Meanwhile, in keeping with China's drive for world-class innovation, copycat generic drugs with questionable efficacy are likely to see a significant sales decline in China as regulators and insurance payers demand more scientific and data-driven rigor.

With the combination of government reform, scientific advancement and significant investment capital, China could well become a global biotech powerhouse in the next decade.

¹ NextBigFuture.com, November 7, 2017
² statnews.com, February 8, 2018

South Korea: Reducing Health Care Costs with Biosimilars



Asian governments are feeling pressure to bring down the cost of health care. One tactic is the production of biosimilars—similarly effective but less expensive versions of biopharmaceutical drugs whose patents have expired. Biopharmaceutical patents are certainly important to incentivize original research and development. After their expiration, biosimilars can legitimately play a critical role in helping emerging countries expand health care to more people at lower costs.

South Korea has been at the forefront of biosimilar development. One company has successfully launched a number of major drugs in the past years, including one of the world's first approved biosimilars, as well as critical arthritis and blood cancer therapies that have taken a commanding share of the European Union market. Another company has focused on process innovation and strategies for accelerating approvals. Both companies enjoy first-mover advantage in a field that could become crowded in the near future. What is clear is that Asia has acute health care needs, and local companies are stepping up with innovations to address them.

Taking the Lead in AI



IT'S A BRIGHT MORNING in Shenzhen, China, and thousands of employees are arriving at work on the campus of an insurance company. Rather than swiping identification badges, the workers pass through secure entrances thanks to facial recognition software, powered by advanced camera technology and artificial intelligence (AI). The ease of moving through the campus without ID cards facilitates collaboration and simplifies logistics. With a workforce of tens of thousands and a client base of millions of middle class consumers, the company is embracing computer learning to improve efficiencies. While adjusting insurance claims, for example, the company trains computers to evaluate photo

Government backing is helping spur investment in AI, amid concerns about state surveillance.

submissions to speed up processing. And for attracting business, its marketing department uses advanced algorithms to target opportunities and anticipate customer preferences.

A favorable regulatory environment gives China's businesses a meaningful advantage in

deploying AI. By adding AI to their list of subsidized private industries, China's policymakers aim to turn the country's AI industry into a US\$150 billion juggernaut by 2030.¹ For global investors, China's investment in AI could spur earnings growth in sectors including information technology, health care and industrials. By design, China's policymakers are looking to foster innovation-based businesses, which they believe are essential for economic growth. While a positive regulatory environment helps, China needs a deeper bench of talent to fully realize its AI ambitions. In the hunt for AI programmers and software developers, China must compete with Silicon Valley, London and beyond. Global tech firms are paying salaries from US\$300,000 to US\$500,000 for AI talent with only a few years of work experience, according to a New York Times report in 2017. As a result, graduates from elite computer science programs are in high demand.

Capturing Big Data and Raising Privacy Concerns

AI and big data go together hand in glove. AI typically relies on vast troves of data to operate efficiently. While search engines in the United States and Europe have a head start on their Chinese counterparts, having collected data for a longer period of time, data collection in China could catch up quickly. In 2016, China had 731 million internet users, compared with 434 million in Europe and 287 million in the U.S.² This means China's search engines are poised to capture enough big data to turbocharge AI applications. And with AI designated as an area of government-supported growth, privacy regulations in China are likely to remain in favor of private businesses that rely on AI to enhance their business models.

At the same time, the use of big data in China and elsewhere raises privacy concerns. China is expected to have 626 million surveillance cameras in use by 2020, according to research by IHS Markit, with cameras present on most major highways, transit hubs and public spaces. Public reaction in China to the spreading presence of cameras has been relatively muted to date, but it remains an open question whether the government can enlarge its surveillance state while retaining the goodwill of its citizens. China currently has a high level of "social

capital"—a feeling of trust and contentment among its citizens—with 87% of Chinese saying they feel their country is heading in the right direction, according to research by Ipsos Public Affairs. Government use of AI technologies will need to proceed judiciously to maintain social harmony and cohesion.

Breaking New Ground

As an innovator in AI technology, China is attracting a greater share of venture capital. While the U.S. attracted almost half of all global VC funding (44%) in 2017, China followed with nearly a quarter (24%).³ China's most innovative companies have already broken new ground in a broad range of AI-related areas, from cameras and sensors to software and algorithms. What China lacks in decades of gathering big data, it makes up for in broad-based internet adoption, widespread use of mobile payments that tracks consumer spending patterns, and a highly favorable regulatory environment. Just as China represents the lion's share of global economic growth, the country may eventually become home to an outsize share of the world's AI innovation.

1 China Daily, April 14, 2018

2 McKinsey Global Institute "Digital China: Powering the Economy to Global Competitiveness," December 2017

3 The Wall Street Journal, April 13, 2018

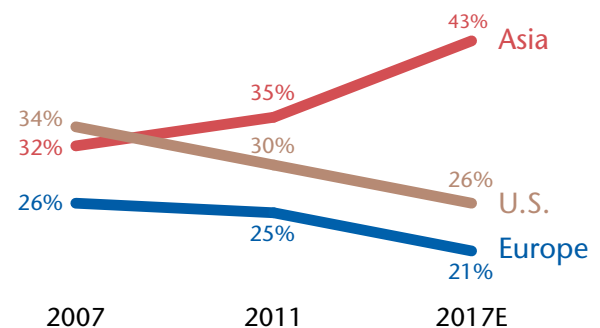
R&D and PhDs: Ingredients for Continued Innovation

Asia's R&D spending has outstripped the U.S. and Europe for most of the past decade. South Korea leads the world in R&D spending as a percentage of GDP.¹ Meanwhile, post-secondary education enrollments in China and India are projected to reach 37 and 27 million respectively by 2020.² India ranks 4th, Japan 5th and South Korea 7th in the number of PhD graduates, according to a 2016 OECD report.³

1,2 Channel News Asia, December 28, 2017

3 World Economic Forum, February 27, 2017

INVESTMENT IN INNOVATION RISING Share of Global R&D Spending



Note: Asia includes East, Southeast and South Asia; 2017 data points are projections. There is no guarantee any estimates or projections will be realized.

Sources: Global R&D Funding Forecast, Dec. 2017, Dec. 2012; Businesswire 2009

BACK TO BRICKS



GOING UP

Shoppers in a multi-level market in Xi'an. Online retailers are partnering with traditional stores to deliver a 360° customer experience.

Not content with outperforming their Western counterparts in online transactions, Asia's big e-commerce players are going where the customers are: stores.

China was once known as the “kingdom of bicycles,” when pedal-powered two-wheelers were the dominant form of urban transportation. Then came unprecedented middle-class affluence, and with it, aspirations to own cars. That’s when China surpassed the U.S. as the No. 1 market for automobile sales. But now, something surprising has happened: countless bicycles once again fill the streets of Chinese cities large and small. People are returning to riding motorless scooters in droves. With QR codes and GPS tracking capabilities, these colorful bicycles represent another example of the sharing economy. Riders use smartphones to unlock bicycles, ride to their destinations, park and complete their transactions. With traffic congestion a constant headache for car drivers, bike riding is viewed as a convenient, healthy and environmentally friendly transportation alternative.

EVERYTHING OLD IS NEW AGAIN

Bicycles are not the only relic of the past experiencing renewed interest. After several years of a difficult operating environment due to challenges from e-commerce, some brick-and-mortar retailers in China suddenly find themselves pursued by major e-commerce players. Ironically, these traditional retailers have become key strategic targets in the competition between China's two biggest internet companies to dominate China's retail landscape, online and offline.

The "New Retail" model, which includes the integration of online, offline, logistics and data, goes beyond product accessibility in "omni-channel" strategies. It emphasizes user experience and engagement across different channels. One example is an innovative supermarket format in which a store offers a wide selection of fresh groceries and gourmet food. Customers select items and use an app to notify the in-store kitchen to cook the food while they continue shopping. They pay via a proprietary online payment service. They also have the option either to take the purchase to-go or have it delivered to their home within 30 minutes. Customers enjoy a satisfying experience while the retailer collects valuable customer data to assist in decisions about merchandise assortment, inventory management and payment services. Internet and technology partners bring business intelligence and repeat traffic to the physical store, effectively helping the brick-and-mortar operations run smarter.

What do traditional retailers bring to the table? Their

biggest value lies in their store networks. The leading players in supermarkets, general merchandise hypermarkets, department stores and apparel typically have dozens to hundreds of outlets. By acquiring a stake or forming a strategic partnership, e-commerce players get immediate access to these customer touchpoints. These partnerships also give preferential treatment to the payment services provided by the e-commerce player, which helps

explain the current land grab by the major payment service providers. And traditional retailers offer an established supply chain and logistics infrastructure.

Furthermore, brick-and-mortar stores typically generate strong operating cash flow. In the new retail partnerships, they may be asked to make significant capital expenditures to transform their spaces into digitized stores of the future. Asymmetric risks exist: the potential benefits for the physical stores (increased productivity, customer traffic, spending growth and customer loyalty) are more long term and uncertain, while benefits to the e-commerce players (higher traffic, payment services, logistics, consumer data collection) are more immediate and visible.

In the "New Retail" era, customer experience takes center stage and consumers are more empowered than ever. They can choose where and how they want to shop, while technology helps the retailers to quickly respond to

or even predict customer demand. It gives new meaning to the old saying, the customer is king.

"In the 'New Retail' era, customer experience takes center stage and consumers are more empowered than ever."



EASY RIDES

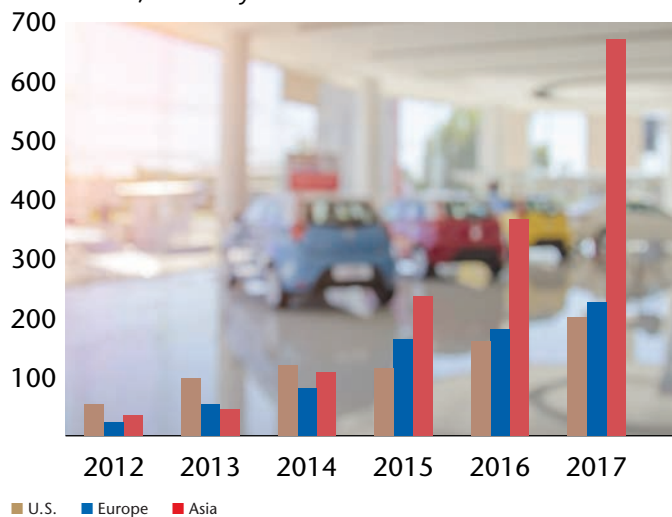
Bike sharing has brought the two-wheeler back into vogue for simplified urban mobility.

EV Batteries Deliver a **JOIT** to Asian Economies

The global market for EV batteries is expected to grow tenfold in the next 20 years, and Asian countries are poised to be major players, both as producers and consumers.

ELECTRIC VEHICLE SALES

Thousands, annually



Note: Asia includes China, Japan and South Korea
Sources: International Energy Agency; National Automobile Manufacturers' Associations

One man's story shows how much electric vehicles are catching on in South Korea. This fellow thought it would be a good idea to pre-order a much-anticipated electric offering from one of Korea's biggest car companies. A government subsidy equivalent to US\$16,000¹ made it extremely attractive. Charging stations are spreading all over the country. And he felt good about doing his part for the environment. Imagine his disappointment, then, when he found out the waiting list was closed due to too much demand.

Driven by public concern over air quality, the South Korean government is actively supporting electric vehicle (EV) adoption, with an ambitious target to grow the number of EVs on the road to 250,000 by 2020, compared to just 15,000 in 2017, according to the Ministry of Land, Infrastructure and Transport. Generous subsidies and the proliferation of charging points are part of this initiative.

Meanwhile, competition is escalating between China and Japan over the type of technology and power that may be adopted as the global standard for electric cars. Worldwide, close to one-third of all electric cars on the road today are driven in China, the largest EV market on the planet. Many locally funded start-ups in China hope to usurp dominance from the U.S. Japan has invested heavily in fuel-cell technology and infrastructure as part of a national policy for the zero-emission fuel to power homes and vehicles.

The global market for EV batteries is expected to grow tenfold in the next 20 years, and Asian countries are poised to be major players, both as producers and consumers. Two South Korean companies rank among the top three producers of EV batteries, with more than 30% of the EV battery shipments globally, excluding Chinese battery makers.² One of them has reported an order backlog totaling more than US\$40 billion from nearly 30 automotive manufacturers.³ Both companies have ambitious plans to increase battery

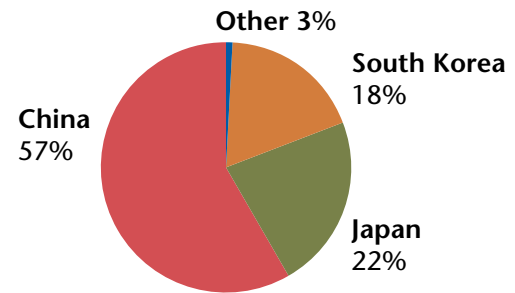
capacity substantially in the next two years, which should help drive costs down even further.

Korea's battery companies face a significant competitive threat from China, where government protection policies have enabled Chinese companies to set higher selling prices. This advantage is likely to diminish, however, when government subsidies end by 2020. Over time, companies that can deliver superior technology and economies of scale are more likely to prevail.

1 Korea Herald, February 1, 2018
2 SNE Research, March 12, 2018
3 Korea Joongang Daily, March 13, 2018

ASIA DOMINATES THE ELECTRIC BATTERY INDUSTRY

Li-ion battery capacity—commissioned and under construction



Source: Bloomberg New Energy Finance; data as of Feb. 6, 2017

Social Media Stars Drive Spending



NEW BUSINESS MODEL

A model poses for her own fashion website. Millennial “wanghong” (hot on the web) superstars promote their favorite brands or even their own businesses to millions of social media followers.

IT WAS 2 A.M. ON NOVEMBER 11, 2017.

Only two hours into China’s “Singles Day,” the biggest online shopping event of the year, and some of China’s most popular online apparel stores were already announcing that their sales exceeded 100 million renminbi (RMB) (US\$15.8 million).¹ Surprisingly, these stores were not associated with established fashion brands or movie stars. Instead, they were run by social media influencers like fashion icons Zhang Dayi, Cherie and ASM. By the end of the day, four influencer brands made over RMB 100 million in sales each and six influencer stores were among the top 30 women’s apparel stores by sales that day.²

Social media stars in Asia are powering a new economic model, thanks to the booming online entertainment industry. In many parts of Asia, consumers are

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leap-frogging the tightly regulated TV offerings and adopting online videos and streaming as their main entertainment options. The proliferation of smartphones and faster data networks are accelerating this shift. China had 344 million live streaming viewers as of December 2016, representing 47% of all internet users, according to the China Internet Network Information Center (CNNIC). Audiences tune in to watch self-made internet hosts who perform musical numbers, play video games, review products, teach make-up tutorials or just entertain in their own shows. Some U.S. social media networks have comparable features, but their penetration is much lower and monetization lags behind the Asian companies.

Unlike traditional TV programs, live streaming encourages real-time interaction between the host and the viewers. Social media stars build and cultivate their fan bases through unique and engaging content ranging from hip-hop performances to short comedy talk shows.

In the early days of live streaming, hosts made money by redeeming virtual gifts received from their fans. Now, riding on the strong growth of online advertising and e-commerce, social media influencers have more ways to monetize their talent. In the process, they have become an important force in the e-commerce industry. iiMedia, a data consultancy firm in China, estimates up to 15% of sales on e-commerce sites may be influenced by social media stars.³

The rise of social media stars creates challenges for supply chains that were used to order planning and brand partnerships. Fashion blogger Zhang Dayi, for example, became famous for making tens of millions RMB worth



BAG MAN

Fashion blogger Tao Liang, better known as Mr. Bags, appears at a New York Fashion Week runway show. Liang reportedly has more than 3 million followers or “bagfans” seeking his advice on luxury handbags.

of sales within days of showcasing a coat in her live broadcast. Influencers can create unpredictable spikes in order volume. Fortunately for Asia’s manufacturers, an entrepreneurial spirit has prevailed. Supply chains have started to adapt to this new business model. For instance, some South Korean cosmetic outsourcing companies manufacture products such as lipsticks for online celebrities’ private labels. Some apparel manufacturers have shortened lead times for orders from internet celebrities to maximize volume and increase margins.

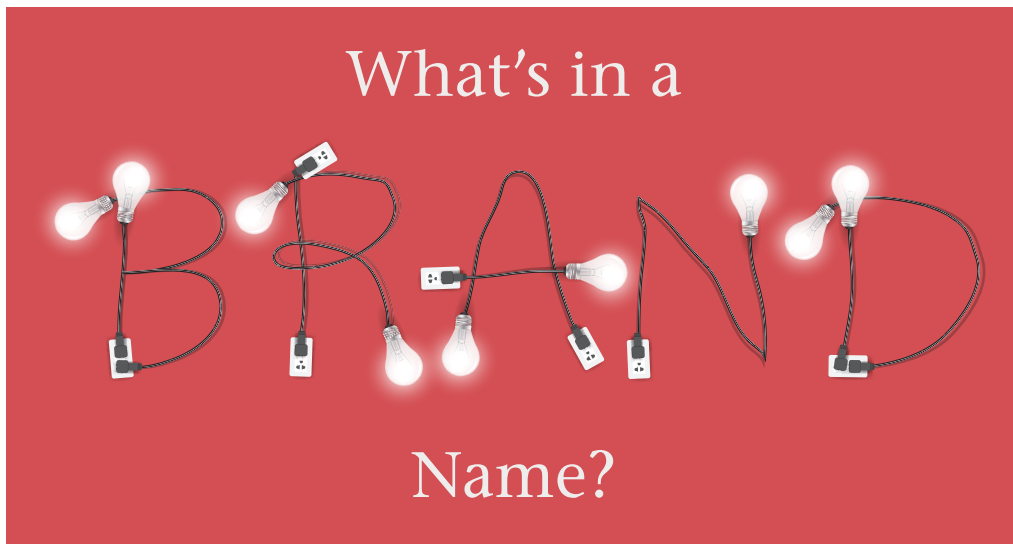
In the internet entertainment world, however, the only constant in life is change. It is hard to stay popular for long and the industry keeps innovating. Competition among video sites has always been fierce, compelling sites to differentiate by content and target audiences. Short videos under 15 seconds have grown more rapidly over the past year, taking advantage of people’s fragmented viewing time throughout the day. Douyin, a short music video platform where users can create 15-second videos, quickly became immensely popular among young people following its launch in late 2016. Video views reached 1 billion by August 2017, less than a year after its launch.⁴ The astonishing success of Douyin is attributed to its deep understanding of the core user group and the powerful artificial intelligence algorithm behind its personalized recommendations. Now, Douyin is expanding beyond China and has climbed to the top rankings in Apple’s app store in many countries, including Japan and Thailand.

1 Sohu.com, November 11, 2017

2 Parklu.com, November 2017

3 The Economist, March 15, 2018

4 Walk the Chat.com, February 25, 2018



Between rising affluence, domestic demand and increased competition, Asian marketers are adopting Western-style branding techniques to add value to consumer goods and services.

A young Chinese couple needs a rice cooker. In the past, this would have been a fairly straightforward, utilitarian purchase. Today, they have an array of choices from rice cooker manufacturers, all claiming superiority and competing for the couple's attention on store shelves or online.

As domestic consumption becomes a bigger driver of Asia's economies, manufacturers seeking to market at scale have to differentiate their offerings for more discerning consumers. That is why they are investing in a combination of research and development, product innovation and, most notably, branding. Foreign brands still carry cachet, particularly in the high-end, luxury categories of fashion, cars and watches. But for everyday, mass-market products and services, Asian consumers are showing a preference for Asian brands. Asian marketers have a distinct advantage in that they are well-attuned to their customers' habits and tastes, and can design products—like rice cookers—tailored to Asian markets.

Asian brands are particularly strong in consumer appliances, including specialty products like water dispensers and air coolers. Homegrown cosmetics brands have been successful as well, with companies using traditional local ingredients and formulating their products to the distinct characteristics of Asian skin. Packaged snacks and convenience foods are designed to appeal to local tastes and dietary standards. In South Korea, a number of branded coffeehouse chains have sprung up to compete with the best-known Western counterparts.

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While South Korea and Japan famously produce name brand cars for the global market, China has its own well-established, branded auto industry, turning out midrange, gas-powered cars for domestic drivers at far lower prices than comparable imports. A number of start-ups have jumped into the fledgling electric vehicle market as well. And even though the most popular smartphones sold in the U.S. are manufactured in Asia, Asian countries have their own brands geared to domestic consumers, built in separate supply chains from the exports.

Asian brands are also strong in the services sector, particularly internet services. Locally built search, social media, music, mobile payment and sharing platforms enjoy powerful brand loyalty among Asian consumers. China, of course, has shut out the most significant Western competition in social media. In South Korea, however, which is fully open to foreign online providers, local people still show a preference for their local options.

Internet brands have picked up another notable Western branding practice, namely the brand extension—putting their names on traditional businesses outside of their original arena, such as financial services, and thereby attracting consumers who have placed their trust in the brand.

As branding takes root in Asia, marketers still face risks that are distinct to the region. Intellectual property protection needs to be strengthened. The same copying problem that plagues Western marketers in China and Southeast Asia threatens domestic brands as well. Meanwhile, as the most affluent segment of the consumer market grows in size and spending power, Asian companies will need to develop high-end offerings to compete with foreign luxury items favored by those who can afford them. Free markets are indeed fickle, making it all the more critical to carve out a competitive advantage by delivering quality products under the banner of a trusted brand.



FACE FORWARD

A make-up display in Seoul. South Korea's cosmetics companies benefit from the growing Asian consumer preference for regional brands.

BANKING ON



Across Asia, companies and consumers are bypassing the traditional banking system, using mobile platforms to make and collect payments and to borrow and lend money. The banks are playing catch up.

A street corner vendor in India stands to make good money selling vegetables from a cart. But first she needs cash to buy inventory to sell. Like a majority of people in the country, she doesn't have a banking relationship or even a bank account. So she turns to a micro-finance lender that typically deals in short-term loans of less than US\$100. The top micro-lender in India, in fact, lends only to women and employs a group lending model, so that if one person in the group is unable to make her payments, the rest of the group will step in and cover her until she can pay. Now the vendor can buy her vegetables from the farmer. And he, in turn, can pay off the loan he took out to plant his crops. In 2017, micro-lenders served some 45 million borrowers in India.¹

Meanwhile, in Beijing, a young graduate fresh out of college wants to buy a smartphone at the equivalent of around US\$700. Like most Chinese, he doesn't have a credit card or a credit history. He needs credit quickly but his local bank branch can't offer a solution. He can go to an online lending platform that securitizes loans for investors, however, and likely get an answer in two days.

Leapfrogging the Banks

These two hypothetical examples illustrate very different solutions to a common regional problem. From Asia's modern metropolises to its frontier markets, financial inclusion—enabling ordinary citizens to participate in the financial system and share in the benefits of growth—



GROWTH MARKET

Shunned by big banks, small business operators like these vendors in Jaipur, India can turn to microlenders to finance and grow their businesses. Microlending helps expand financial inclusion in emerging markets.

has been a challenge. People lack access to credit and to basic banking services like checking accounts. In India, many banks have been hard-pressed to gather the data necessary to do proper underwriting, leaving them to make decisions based on experience and intuition rather than reliable information. China's state-owned banks, which historically served primarily as financing vehicles for infrastructure and construction, have generally been slow to serve individual customers at scale. Credit histories are thin at best and credit scoring is still a novel concept, making bank credit inaccessible to most would-be borrowers.

It is not surprising that innovative companies have stepped in to fill the void left by the banks. Starting in China and now spreading across Asia, an explosion in mobile-powered peer-to-peer payment and lending solutions has enabled everyday citizens to circumvent the banking systems to conduct financial transactions and obtain credit. China's two largest cashless payment networks now claim a combined 1.4 billion customers.² Online lending platforms have attracted borrowers by offering a superior customer experience and fast decisions. China accounts for more than half of the worldwide market in digital payments and three-quarters of the market for online lending, according to a report in *The Economist*.

China's financial technology or "fintech" innovators benefited early on from a fairly lax regulatory environment intended to encourage innovation in the financial sector. What the regulators failed to anticipate was the rapid, widespread adoption and unprecedented growth of online payment and lending, leaving traditional banks behind. Now they are subjecting these platforms to greater scrutiny and implementing stricter controls. Peer-to-peer lending platforms, for example, which originally simply acted as intermediaries between borrowers and investors, are now required to maintain their own capital to meet their obligations.

Expanding into New Frontiers

In Bangladesh, where only around 17% of people have bank accounts,³ the fastest-growing enterprise is an online payment system that allows individuals to transfer small amounts of money to peers or merchants. Over roughly six years, the company garnered 30 million users and an 80% share of the mobile payments market.⁴ Now, China's leading player in online payments has taken a sizeable stake in the company, which is expected to lead to an infusion of new technology and an expansion of the platform's product capabilities.

Back in India, mobile technology is starting to reshape the credit system as well. In large urban areas, banks have been able to gather data on customers to assess creditworthiness and perform more precise underwriting. Much of the smaller city and rural population, however, has been left out. Now that's changing. Armed with mobile tablets, front-line bank loan officers can go far into the field and collect information from aspiring borrowers. Combined with the country's ambitious unique biometric identification system, banks are better able to compile profiles on customers in order to make truly data-driven lending decisions.

Innovation in the financial sector is spreading across Asia, abetted by large companies in more developed countries making investments in emerging and frontier markets. And the potential for online financial services has only begun to be tapped, as the big players make plans for expansion beyond payments and lending into savings products, insurance, investment brokerage and more.

Where does that leave traditional banks? One reason for tighter regulation is to slow the expansion of online platforms and give the banks a chance to catch up. Whether they can seize that opportunity, embrace innovation and compete against the new models remains to be seen. Meanwhile, Association of Southeast Asian Nations (ASEAN) countries such as Vietnam, which is in the early stages of banking reform, are learning from the lessons of China and building the regulatory framework that will level the playing field from the start. Clearly, innovation is the driving force that could well lead to a stronger and more inclusive financial system across Asia.

1 Economic Times India, April 22, 2017

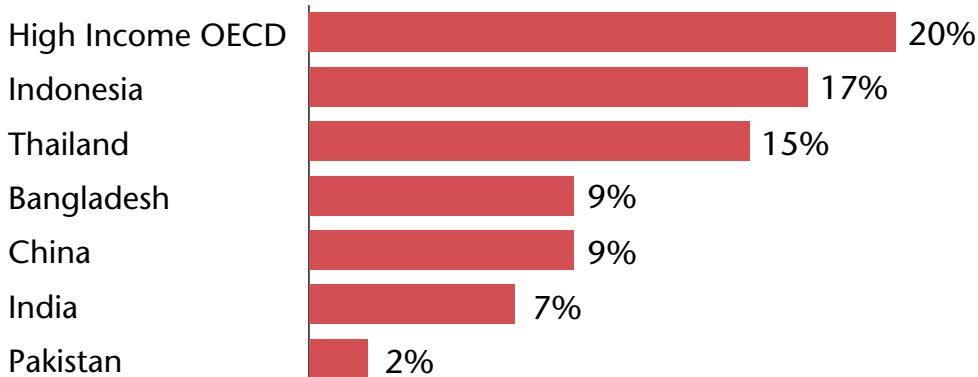
2 South China Morning Post, December 16, 2017

3 Financial Inclusion Insights—Bangladesh, September 2017

4 WinWin Magazine, March 23, 2018

FINANCIAL INCLUSION IS A KEY OPPORTUNITY IN ASIA

Individuals (ages 15+) who borrowed from financial institutions



OECD=Organisation for Economic Co-operation and Development. High income OECD countries include Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States.

Source: World Bank; data as of 2017



Creative Destruction in China: Innovation's Flip Side

In a relatively short time, China has developed a strong digital infrastructure, with widespread 4G telecom networks and mobile adoption. That means innovative product concepts can come to market and achieve scale and reach faster than nearly anywhere else in the world. It also means product lifecycles can be drastically reduced, however, as new concepts emerge and quickly supplant existing ones. Companies must constantly evolve or reinvent their business models to stay competitive—or stay in business.

Consider these staggering statistics on the sharing economy craze of recent years: over 80 bicycle sharing companies have received venture funding since the beginning of 2017. Just two years ago, China had fewer than 50,000 “dockless” shared bicycles that riders could pick up and leave anywhere. By mid-2018, the number soared to nearly 30 million.¹

Small wonder that entrepreneurs asked what else could be rented or shared via an app, and venture capital chased after them eagerly. Twelve firms renting out compact, mobile battery chargers known as power banks secured 1.13 billion renminbi (around US\$179 million) in venture investment.² Newer businesses ranging from basketball- to umbrella-sharing took in about 25 million renminbi

(US\$3.65 million) combined. One such umbrella-sharing platform saw more than 300,000 umbrellas disappear, either stolen or simply lost, shortly after its launch.³

With any business model that depends on speedy time to market, the temptation to hit the ground running without a thought-out business plan is high. In the case of bike-sharing in China, the boom-and-bust cycle was a mere two years, and media coverage turned from praise to mockery as mountains of worthless bikes began clogging pedestrian paths. Now, a little bit of thoughtful innovation is refreshing the business model, as large internet companies with existing user bases are taking over the bike-sharing business to leverage the data and cross-selling opportunities (with mobile payments for example) it affords.

The lesson? Innovation inevitably carries risks. In China's rapidly growing new economy sector, many businesses are bound to come to market with unproven models. Creative destruction is the lifeblood of a vibrant economy, and some trial and error—sometimes spectacular—is unavoidable. Investors need to be vigilant in trying to separate boom-and-bust speculation from long-term winners.

1 Moneycontrol.com, December 20, 2017

2 Reuters, May 29, 2017

3 Medium.com, August 20, 2017



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Brighter Days

Matthews Asia analyst Julia Zhu can still remember the days when her Beijing apartment would suddenly go dark before she realized she needed to buy power. Apartment dwellers in China's capital typically pre-pay for electricity by recharging a "top-up" card at a designated bank. "If it was nighttime, I had to stay in the dark until the bank opened," she recalls. Now she subscribes to a service that sends an alarm from the power company when the meter drops below a certain point. Mobile payments permeate almost every aspect of everyday Chinese life. For

consumers, they are a convenience. For merchants, they're more efficient and provide protection against counterfeiting. Mobile payments help improve cash flow and carry lower fees than credit cards.

By making it easier to transact business, mobile payments encourage consumption and investment. Even people who used to buy pirated software or DVDs are now willing to pay for copyrighted products, thanks to both heightened awareness of intellectual property protection and the convenience of mobile payments.

Cashless in China

Yes, it is actually possible to navigate an entire day in China's larger cities without hard currency or plastic cards. The country's ubiquitous mobile payment systems, QR codes, ordering apps and sharing platforms have turned the smartphone into the transactional medium of choice. We follow Julia Zhu's day in Beijing:

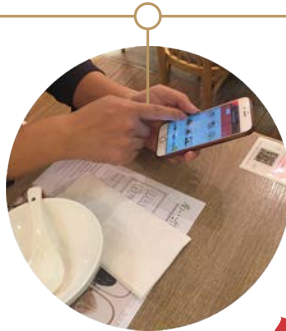
Get to work

Commuters pay their road tolls or subway fares with their phones.



Grab a bite

Why wait for a waiter? Order and pay for lunch directly from your table.



Run some errands

Pick up something from a street vendor. Most of them take payments via a QR code.



The country's ubiquitous mobile payment systems, QR codes, ordering apps and sharing platforms have turned the smartphone into the transactional medium of choice.



Then grab a bike

Spare the air and beat the traffic. Rent a ride with your phone.



Charge it

Shared power banks abound. So your spending power won't run out.



Have faith

Everyone trusts mobile payment systems for their shopping needs.