



In recent years, a host of promising unicorn companies have emerged in China. These are local startups that are generating enormous wealth early in their development. (The standard definition of a unicorn is a privately held startup valued at more than US\$1bn.) Most of these enterprises are in the vanguard of their industry, leading the way for the generation of new technologies, business activities and business models. Their rise is thus regarded as a bellwether of future economic growth.

Companies such as Tencent, Alibaba, Baidu and JD.com, all less than 21 years old, have become 'super-unicorns': internationally recognised competitors, often valued at US\$10bn or more. We believe that many more of today's unicorns will also grow into global industry giants in the future.

The rapid modernisation of China and the growth of its economy help explain the unicorn phenomenon. During the past few years, the main engine of economic growth has shifted from investment to consumption. The rise of the mobile Internet has transformed China's huge consumer market, and the generation born in the 1980s and 1990s has become China's most influential buying group, creating surges in consumption that have brought new business opportunities. With novel ways of thinking and shopping, China's young consumers are looking for more personalised, more convenient and smarter products and services.

Another factor contributing to the emergence of China's unicorns is the pace of technological innovation. Unlike businesses of the past, today's unicorns are competitive because of their mastery of data and technology. And they expect to rely even more on innovations in data-based insight, artificial intelligence (AI) and blockchain. Technological advances have made it possible, for example, for unicorns to accurately predict consumer demand and preferences, and rapidly shift their businesses accordingly.

Support from the capital market has also been essential for the growth of unicorns. The China Securities Regulatory Commission (CSRC) recently rolled out a regulation smoothing the path for technology unicorns listed overseas to pursue domestic market listings, and we expect to see more super-unicorns on the A-share market soon. Meanwhile, the investments made in startups by techsavvy incumbents have further accelerated the pace of disruption.

Finding talent is another key factor for enterprises trying to gain and sustain a competitive advantage. It is especially key for the youngest Chinese unicorns. Attracting top talent and building a corporate culture are strategic priorities for them. They are learning how to recruit, manage and motivate workforces composed mainly of employees from the post-1990s generation.

In this report, our inaugural study of Chinese unicorn companies, we surveyed and interviewed the top executives of 101 rapidly growing high-valuation enterprises. They described the factors affecting their fast-growth businesses and their own prescriptions for success. China's unicorns have shaped, and will continue to shape, the startup world of technology and services. They have changed the way people eat, shop and work, and their galloping growth has left footprints of disruption and innovation, significantly affecting or in many cases disrupting the way many sectors and businesses operate.

To the executives whose opinions are featured in this study, we would like to extend our thanks for taking time out of their tight schedules to share their thinking and insights. Their responses provide valuable guidance for the unicorns themselves, and for more established companies that also seek growth. The wave of economic momentum described in this report will continue to both bolster and benefit from the development of China's new economy.

-Raymund Chao, Chairman of PwC Asia-Pacific and Greater China



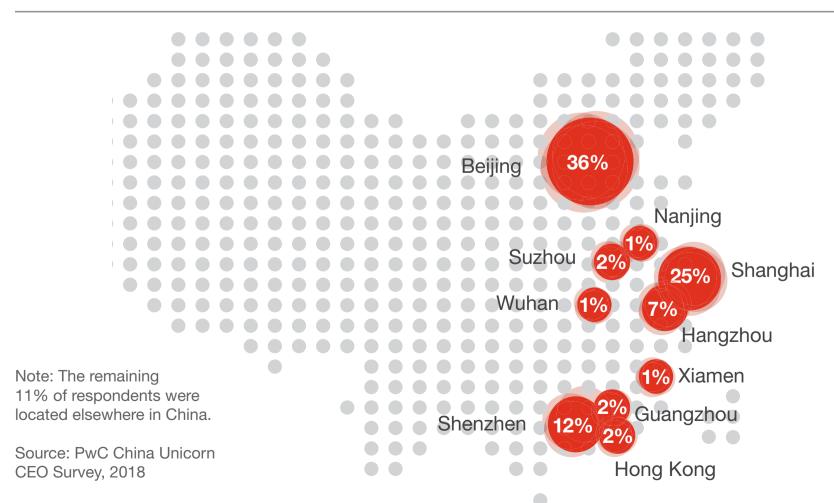
They are surrounded by a halo of capital, moving rapidly within China and potentially beyond. They are visible locally but not well understood, and almost unknown to the world outside. Yet they could be among the most influential global companies in the next 20 years. To take a close look at their business models and development path, PwC carried out a survey in 2018 of the chief executives of 101 young, successful Chinese companies – companies that are either unicorns now or likely to become unicorns soon.

The word 'unicorn' evokes stories of a rare creature that can be seen by many but caught by only a few. Venture capitalist Aileen Lee coined the term in 2013 to refer to privately held startup businesses with valuations

of US\$1bn or more. In China, these are often familyowned businesses, growing so quickly and with such unique value propositions that they, too, are very hard to catch. As the Internet era has transformed business throughout the country, it has also witnessed the birth of unicorns at an accelerated rate.

Most of the Chinese unicorns and potential unicorns that we surveyed are located in Beijing, Shanghai, Shenzhen and Hangzhou. These are cities with a high level of innovation, mature technologies, skilled talent, supportive policies and the presence of other leading technological and innovative enterprises (see Exhibit 1). We found unicorns in 13 sectors, with almost half of the companies concentrated in four industries

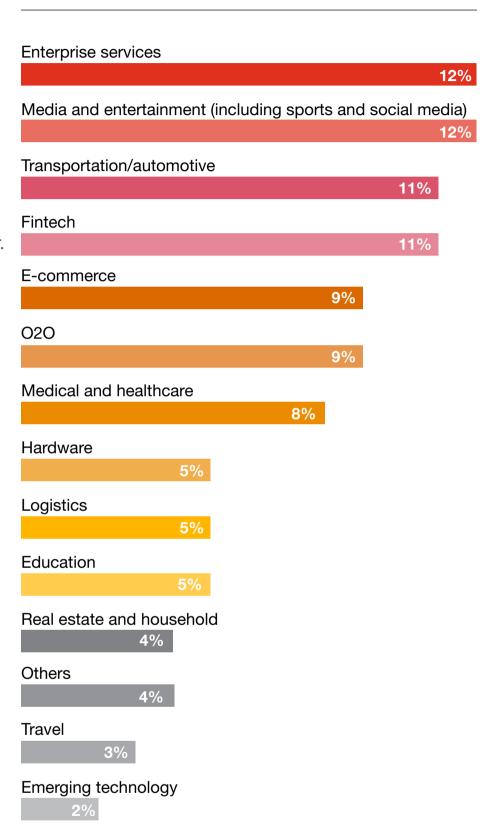
Exhibit 1 **Geographic location of unicorn survey respondents**



significantly shaped by technology: enterprise services, media and entertainment, transportation and automotive, and financial technology (fintech). Close behind in the sector rankings were e-commerce startups, online-to-offline (O2O) businesses enabling online purchasers to pick up products in person, and medical and healthcare enterprises (see Exhibit 2).

Unicorns in any country are characterised by rapid growth, and that of China's unicorns is among the fastest. Of the companies that disclosed information about their enterprise revenues, 83% said that they had increased by more than 50% in the last fiscal year. Most of that group, 54% of the total, said revenues had more than doubled. Nearly two-thirds claimed valuations of more than US\$1bn, and the other third were chosen for the survey because of their impressive growth or other measures that suggested they would soon hit that mark. Six percent claimed valuations of more than US\$10bn. About half of the total group said they employed more than 2,000 people (see Exhibit 3).

Exhibit 2 **Survey respondents by sector**



Source: PwC China Unicorn CEO Survey, 2018

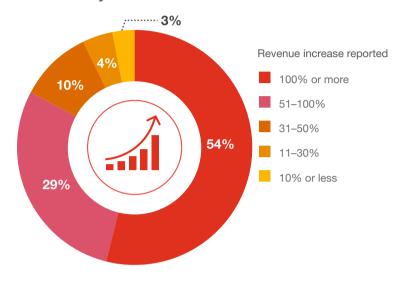
Only the United States' economy has as many unicorns as China's does. But one big advantage that Chinese unicorns have over the US unicorns is their near-exclusive access to a huge and vital domestic market. China has the second-largest consumer market in the world (after the US). It is growing faster and is less saturated than its US counterpart. It is full of newly prosperous consumers with improving standards of living who are largely unavailable to unicorns in other economies. According to China's National Bureau of Statistics, consumer expenditures accounted for 58.8% of overall economic growth in the country in 2017.

China's consumers are also relatively technologically advanced. The country's online retail sales ranked first in the world in 2017, reaching RMB7.2tn (US\$1.1tn) – an increase of 32.2% from the year before. Online sales accounted for 15% of total retail sales of consumer goods in China.

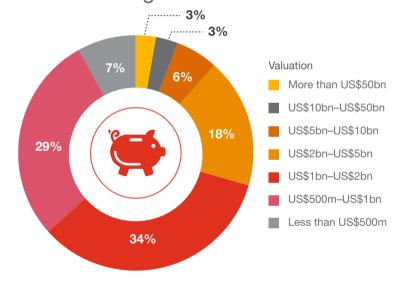
The leaders of unicorn companies are characterised by energetic, entrepreneurial frames of mind. Three-quarters of the responding companies had been in business for less than eight years, and one-fourth of the respondents said their companies were less than four years old. These leaders are seeking to achieve success and fame, and quickly enter the ranks of top companies amid ever-fiercer competition. At the same time, they come into these roles with experience: nearly 70% of the founding members of unicorns have two or more startups already under their belt. This is testament to their persistent dynamism, their willingness to learn from experience (including failure) and their ability to grow more courageous with every battle.

Exhibit 3 **Basic growth metrics cited by unicorns in the survey**

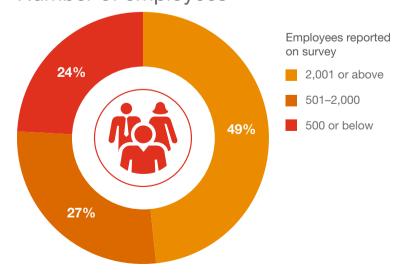
Year-on-year increase in revenue



Valuation range



Number of employees



Note: Percentages may not equal 100 due to rounding. Source: PwC China Unicorn CEO Survey, 2018



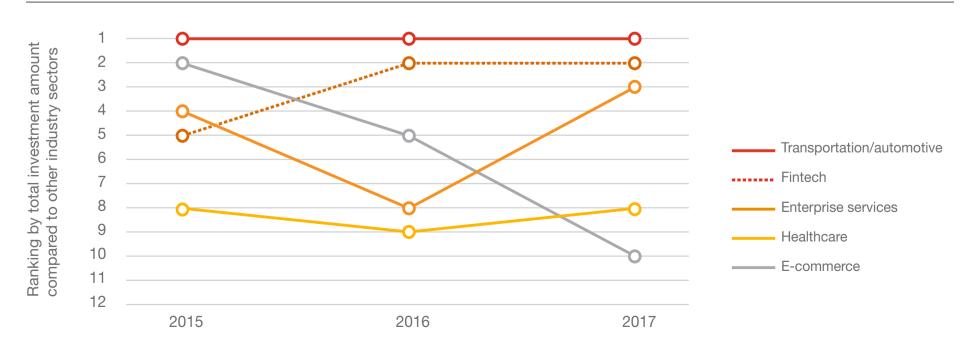
As Raymund Chao says in the foreword to this report, support from China's capital market has been essential for the growth of unicorns. Support stems from two sources – Government policy and the diversification of financing channels in China – and has ushered in a golden era of rare opportunities for investors and startups.

A vast majority of the companies surveyed, 80%, expect a new round of financing during the next two years. Within that group, nearly a third (25% of the total respondents) said their plans for financing were urgent. These companies should systematically improve their financial, taxation and internal control aspects, so as to meet the listing requirements as soon as possible. When it comes to other types of deals, 48% have plans for the merger and acquisition (M&A) of outside businesses, but only 6% plan to be taken over by other companies. Based on these responses, unicorn leaders seem to value independent, long-term development over flipping their companies for immediate gain. They want to create tomorrow's great global enterprises.

Somewhat fewer companies have plans for an initial public offering (IPO). Of the enterprises that disclosed information in the survey, a majority (65%) had plans to list within two years. Among that group, 21% expressed urgency, saying that their IPO would happen as soon as possible. Another 44% had plans to list but without the same urgency. The remaining disclosing companies had no IPO plans. The survey found that the capital markets most sought after by unicorn respondents, in order of desirability, were the Hong Kong stock market (43%), the US stock market (25%) and the A-share market in China (23%).

Newly issued Government policies are leading to market listing opportunities for unicorns. The CSRC is reforming the system for A-shares to try to attract unicorns listed overseas to return to the domestic market. Four industries have been targeted by these policies: biotechnology, cloud computing, Al and highend manufacturing. We look forward to seeing more super-unicorns return to the domestic A-share market. The 'weighted voting rights' mechanism recently launched by the Hong Kong Stock Exchange (HKEX) is also attractive for handling these investments.

Exhibit 4
Financing trends by industry



Source: PwC China Unicorn CEO Survey, 2018

Investors have thus far tended to favor consumeroriented (B2C) unicorns, and that interest continues, but investment in B2B-oriented firms is on the rise. The top three industries for financing among survey respondents in 2017 were transportation and automotive, fintech and enterprise services. The first two sectors in particular have benefited from regulatory encouragement in China – for example, the Government is promoting electric vehicles and other advanced transportation options. Although the enterprise services industry has the largest number of unicorns, the average financing amount for these companies is less than that of B2C enterprises. The healthcare industry is expected to see more wellfinanced unicorns in the next few years as support for it grows in the capital markets (such as in HKEX's biotech segment) and as the Chinese population ages, with more people focusing on health-related concerns (see Exhibit 4).

In e-commerce, meanwhile, the amount of financing that unicorns seek is dropping. This reflects a downturn in the investment dividend cycle. The survey results also suggest a pattern of variation in e-commerce investing. At different stages of development, a company will prioritise different operational key performance indicators (KPIs): customer traffic in the first year; active customers in the second year; revenues in the third year; free cash flow in the fourth year; earnings before interest, taxes, depreciation and amortisation (EBITDA) in the fifth year; and profit after five years. Investors focus on the same sequence of KPIs as the company moves through its various financing stages.

The top ten institutional investors providing capital to Chinese unicorns, ranked by the number of these companies they invested in, are: Sequoia, Tencent, IDG, Matrix, Alibaba, Shunwei, Warburg Pincus, Qiming, Morningside and Baidu. This is a diverse group, and it includes three institutional investors (Baidu, Alibaba and Tencent ['BAT']) that are first-generation super-unicorns themselves. The BAT investments are noteworthy: 23% of the respondents said they were invested in by at least one of these three super-unicorns.

The top five institutional investors – Sequoia, Tencent, IDG, Matrix and Alibaba – tended to make more cross-project investments, linking companies within an industry. These investments reflect the advantages stemming from industry clusters.

The three factors that unicorn enterprises consider most important when choosing investors are brand value (24%), business and traffic brought by investors (22%) and valuation (20%). This response indicates that unicorns generally are more concerned with the popularity and influence of the investors in the field, together with the business and traffic that they can bring in, than with their brand value as investment firms. In general, the B2B-oriented unicorns said they paid more attention to valuation, whereas the B2Coriented enterprises emphasised business traffic and the brand value brought by investors. Leaders' interest in investors varies with their age. Older entrepreneurs - those born before 1970 - attach a lower priority to resource-rich investors. Given their experience, they tend to already have relatively rich resources at their disposal and are more interested in other factors, such as their investors' ability to offer guidance and connections.

The Chinese market is still in a fast-growth phase, and unicorns can find ample capital support within it. However, as companies get larger, they need to enhance their ability to control costs and improve profitability through further optimisation of corporate governance.

In today's highly competitive market, moreover, unicorns need to establish an efficient fund management platform while expanding market share and devoting more resources to research and development.

One of the most critical questions in financing is how long the investors must wait for returns. Thirty-five percent of the unicorns surveyed had already made profits, another 27% expected to start turning a profit within one to three years and 25% did not disclose this information.



The survey shows that technology-driven companies account for a high proportion of unicorns. Among the respondents, 40% said that their company's core competitive advantage is technology and data. This is far higher than the next most frequent responses, talent and operations management, at 19% each. Even fewer respondents considered marketing, capital or partners to be their core competitive advantages.

Both technological innovation and business model innovation have been found to attract capital in China. The survey discovered, however, that unicorn company leaders plan to focus more on technological innovation than business model innovation during the next three years. To be sure, many Chinese companies regularly change their business models, concentrating particularly on user experience; there are numerous examples of businesses successfully providing products and services to consumers in more economical and efficient ways. But business model innovation is more commonplace; it is harder for a company to stand out that way. Thus, to compete among the top companies, unicorns increasingly seek to distinguish themselves through technological innovation. Of the executive respondents, 76% singled out big data as one of the most influential emerging technologies for business development and product innovation. Established companies were more likely to value big data than newer ones. The interest in big data is strong in part because it has been elevated to a national strategy in China, and so it is seen to have a bright future. Some common big data applications for companies are tracking consumer habits and behavioural preferences to make marketing more precise, extrapolating future trends more accurately, improving corporate competitiveness and reducing operating costs.

Other emerging technologies that scored relatively high were Al (67%), cloud computing (42%), the Internet of Things (37%) and 5G wireless transmission (34%). Blockchain, robotics, bioscience, virtual and artificial reality, and quantum science were all cited by

fewer than 20% of respondents, and unmanned aerial vehicles was named by only 4%. The interest in AI is noteworthy because it will have a disruptive impact on many industries; it is already reshaping the Chinese unicorns' talent strategies, operational models and approaches to cooperation with customers. A recent PwC report on artificial intelligence prospects predicts that by 2030, AI will contribute US\$15.7tn to the global economy. If companies fail to incorporate AI into their everyday practices now, they may have to pay a high price in the future.

Among the surveyed unicorns that disclosed information about innovation spending, 64% spend more than 20% of their total costs on R&D, and 26% spend more than 40%, indicating a heavy sustained investment in developing technological advantage. The companies said that technology research and development is their main approach to innovation (28%), followed by market surveys (26%) and user feedback (23%).

Unicorns are open to technological advance through strategic partnerships with other companies, including mature enterprises. They tend to prefer to focus on the technological fields in which they excel, and extensive collaboration with outside firms enables them to maximise the use of emerging technologies. More than half (54%) of the unicorns favor strategic cooperation with other companies as their primary technique when developing new technologies; this percentage is well ahead of internal research and development (23%) and talent recruitment (12%). Survey respondents said the most important goals of these partnerships, other than cooperation with mature enterprises, were, first, to deepen the understanding of business scenarios and requirements (34%), and, second, to establish influential precedents and increase the value of their own brand. Generally speaking, B2C enterprises attach more importance to growing the value of their own brand, whereas B2B ones focus more on establishing influential precedents.



Of the executives responding to the survey, 88% were born in the 1970s or 1980s – and thus are now in their 30s and 40s. Employees tended to be younger; for 72% of the surveyed companies, the average employee age was in the range of 25–30. Although the typical age gap between senior executives and employees is only between ten and 20 years, the experience gap is greater.

The ability to manage and motivate relatively young employees is thus very important. It is difficult to maintain workforce stability and high commitment by relying only on the traditional enticement of an entrepreneurial company: the promise of future financial reward. For a company to realise its vision, it needs to optimise talent management and organisational structure, give employees clear career planning and inspire them to develop their potential.

Unicorn leaders appear to recognise this. They identified their top priorities in this order: first, attracting skilled talent (77% picked this); second, brand building (74%); and third, establishing the enterprise's culture and values (71%). These ranked higher than controlling costs and increasing profitability (68%) and using new technologies in current products and services (67%). Together, the priorities of unicorn leaders indicate that the Chinese market is still in a rapid growth phase, and while unicorns can obtain adequate capital support, they must pay close attention to their workforce.

More than 60% of the respondents said that their companies changed their organisational structure every 12 months, which is much more frequently than traditional companies do. With such a high level of organisational flexibility, employees must be adaptable. This appears to be one reason that

unicorn leaders are so interested in developing their enterprise culture and keeping it engaged. The survey also reveals that unicorn structures are more likely to be organised by line of service or product line (57%); only 31% reported being organised by function.

When asked about talent shortages, 28% of respondents recognised a clear overall gap in their recruiting, training and other talent-related capabilities. Another 53% of the surveyed companies said that although their talent capabilities are generally aligned with business requirements, the number of people they employ is still insufficient. Lack of talent is seen by companies as the biggest bottleneck in their development of new technologies, especially in emerging technologies, such as AI and blockchain. The urgency for seeking talent varied by location; 94% of the survey respondents in Beijing said it was a top priority to attract high-quality talent, compared with 82% in Shenzhen/Guangzhou, 69% in Hangzhou and 58% in Shanghai. Among respondents from other cities, 91% said it was a top priority, which may reflect the relative lack of qualified candidates outside a few major cities. The employees in greatest demand were those with technology development capability (71%), executive leadership capability (65%) and marketing capability (57%). The leadership capability involves such 'soft power' skills as people management and fostering a healthy corporate culture.

Many unicorns turn to top enterprises in China for their executives. More than one-fifth of the executives surveyed had left one of the BAT or Big Five businesses (Alphabet/Google, Amazon, Apple, Facebook and Microsoft). The entrepreneurs' practical experience and business judgment, honed in top companies, apparently help them adapt to the market more quickly.



The survey asked unicorn leaders about the risks that they have faced. Talent loss was the highest-ranked risk (27% of the respondents said they had lost valuable people to competitors), with loss of capital resources close behind at 26%. Only 11% of the respondents said they had lost the trust or business of customers. But they don't necessarily expect to hold customer loyalty in the future; 41% of the unicorn executives said that changes in consumer behaviour, especially changes in the behaviour and habits of the new generation of consumers, will be a significant external factor facing them in the next three years.

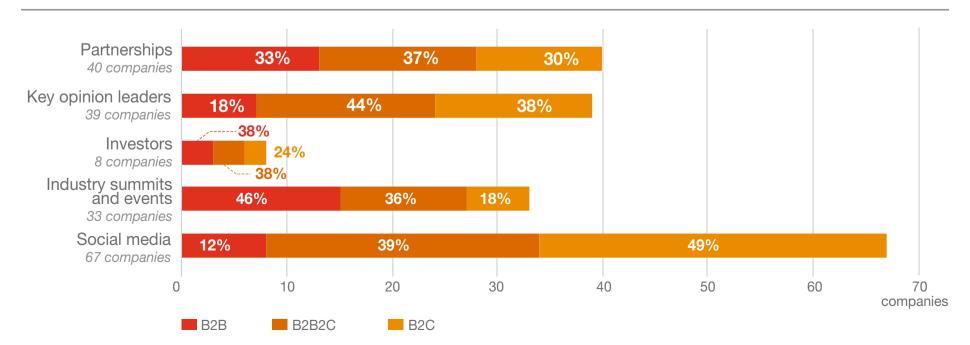
Millennials (born in the 1980s or early 1990s) are the most influential consumer group in the eyes of many unicorn leaders, and their brand building is oriented to this new generation. China's millennials have grown up with the rapid development of the Internet and social media, and they are more focused on personalisation, interactivity and self-identity than members of older cohorts. At the same time, their time and pace of life are more diversified and fragmented.

To keep up with the behaviour and pace of the new generation, companies are using scenariobased thinking, in which they imagine their products embedded within the long-term life trajectories of young consumers. The challenge is to understand the huge demand among this group and adjust marketing channels and market strategies accordingly. More than half of the unicorn respondents (52%) said they spent more than 20% of their total costs in marketing, which is a far higher share than traditional enterprises spend. B2C and B2B2C companies say that social media is their most effective marketing channel, while B2B enterprises prefer industry summits and partnerships (see Exhibit 5).

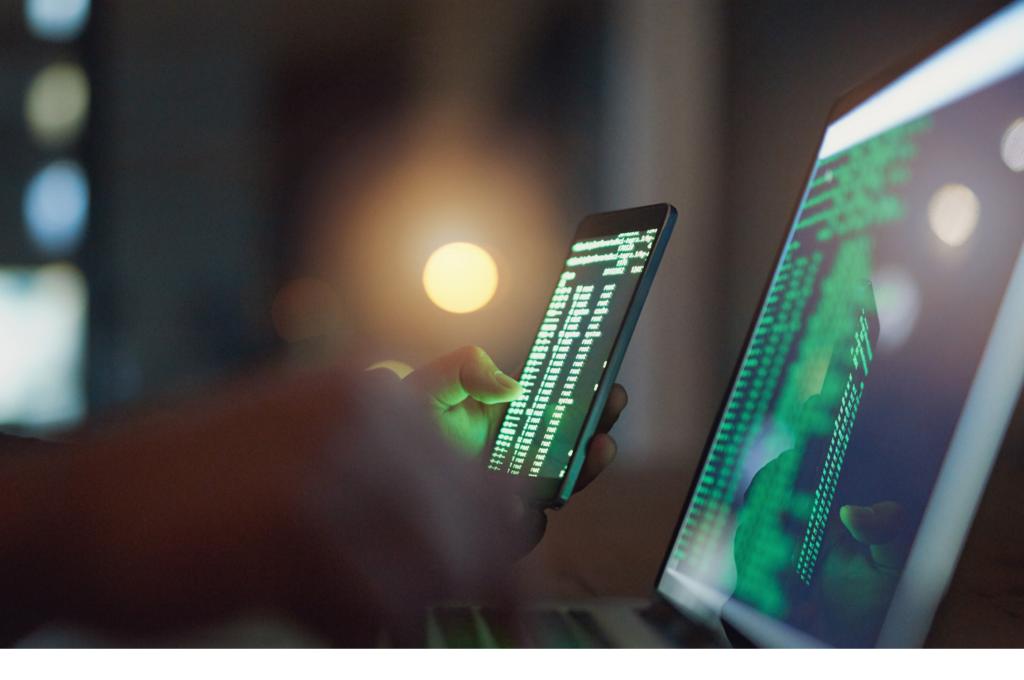
During the next few years, unicorns will face challenges in marketing and differentiating themselves. We believe they should put quality at the core of their brand identity, develop and implement lean management methods, and build their marketing channels around the consumer habits of the next generation.

Another external factor confronting unicorns is the changing nature of Government policies. Unicorn leaders recognise that macro developments, such as policy orientation, regulatory uncertainty and the overall economic climate, can have a considerable

Exhibit 5 **Preferred marketing channels**



Source: PwC China Unicorn CEO Survey, 2018



impact on their enterprises. The survey found that 72% of fintech companies were highly sensitive to policy orientation and 83% were highly sensitive to regulatory uncertainty. These figures are higher than those for other industries. Perhaps that's because, as their market scale continues to grow, the risks inherent for fintech unicorns are increasingly drawing the attention of regulators.

During the past two years, financial regulatory policies have been introduced frequently in China, and an enhanced supervision model continues to be followed in the financial sector. For example, China's Internet Security Law went into effect in June 2017. It regulates cross-border data flow, data storage options (the law requires the use of servers located in China) and virtual public networks. Chinese companies doing business in Europe via the Internet are also affected by the European Union's General Data Protection Regulation (GDPR), which went into effect in May 2018 and establishes guidelines for data protection and privacy.

The survey asked unicorn leaders about cyberattacks and data security threats. China is playing an increasingly significant role on the global stage, and businesses cannot ignore the importance of cybersecurity, data protection and compliance matters. Seventy-eight percent of respondents have a Chief Information Officer or Chief Technology Officer for cybersecurity affairs, 20% have placed other executives in charge of cybersecurity, and only 2% of the enterprises surveyed do not have relevant specialists in management.

Only 10% of the respondents said they had experienced a cybersecurity or data security crisis – perhaps because they are already taking preventive steps to reduce risks. But a mere 39% of the unicorns surveyed said they had crisis-response plans in place; the rest are vulnerable. Those with plans are more likely to be able to weather a crisis and emerge the stronger for it.



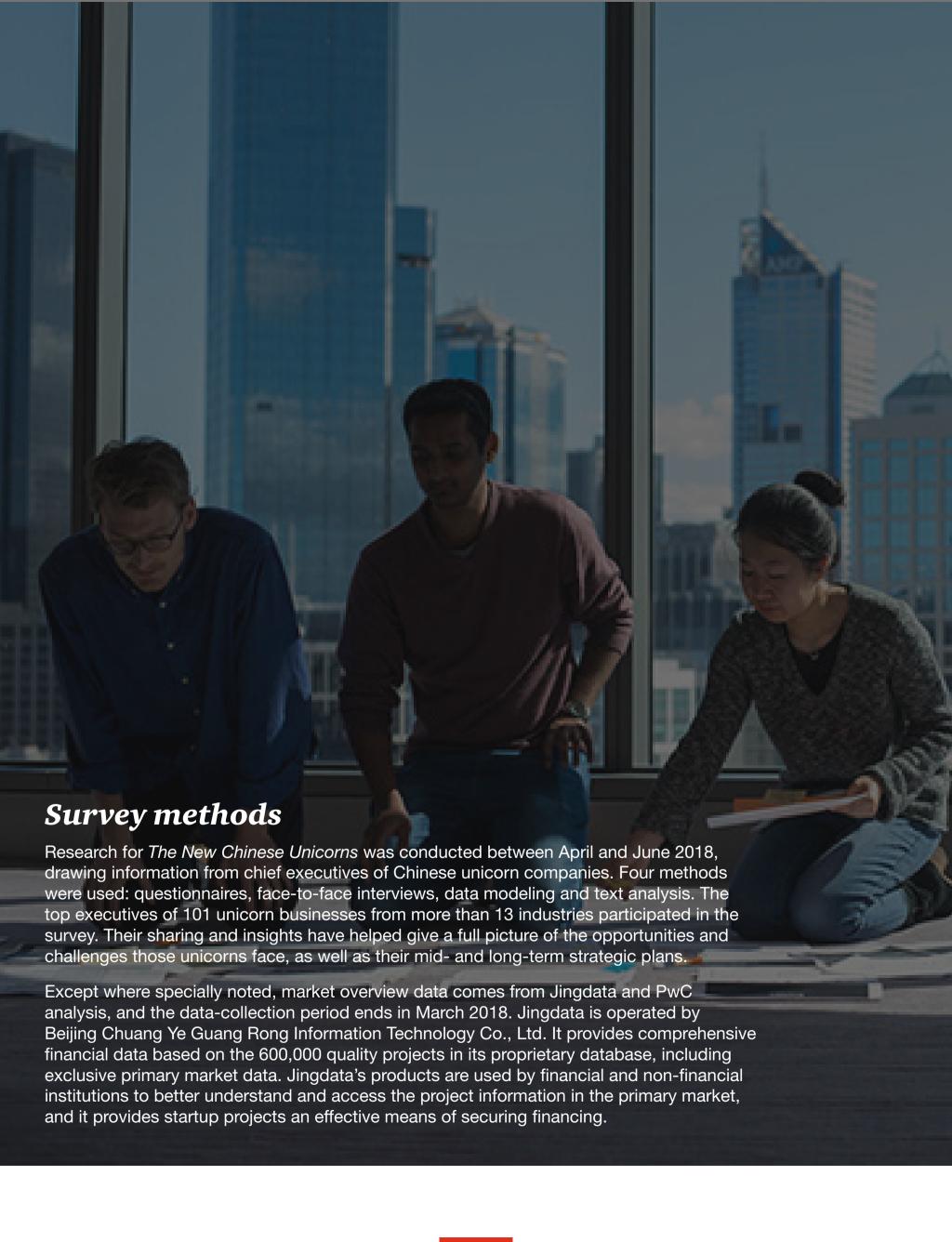
More than half (57%) of the executives interviewed regarded the constant emergence of new technologies as the most influential external factor facing them. They anticipate that strategic opportunities in the next three years will include the rise of a new generation of consumers, demand for lifestyle upgrades (including better products and services), the scenario-based application of new technologies, and market growth in China's third- and fourth-tier cities. (There are hundreds of such medium-sized cities throughout the country.) Despite the huge potential of China's domestic market, more than 70% of unicorns already have plans or strategies for overseas expansion. China's Belt and Road Initiative, which emphasises 'innovation-based open cooperation,' is one factor in encouraging international growth, particularly for unicorns in the technology, media and telecommunications (TMT) industries. Belt and Road's influence can also be seen in M&A activity. According to the Chinese Ministry of Commerce, foreign investment and M&A activity in China declined sharply in 2017, but the amount of M&A investment in countries along the Belt and Road increased by 32.5% on a year-on-year basis. In the survey responses, unicorn executives said that their preferred method for going global was to open overseas branches, followed by forming strategic alliances with local partners and establishing joint ventures with companies from other countries.

Unicorn executives said that the most important factors in choosing where to expand overseas

business were the market scale and growth potential of the target countries, followed by their economic and political stability and talent pools. The preferred regions for expansion are the Asia-Pacific region (31%), regions covered by the Belt and Road Initiative (19%) and North America (18%). Western Europe and the rest of the world claimed 4% and 7%, respectively, and 21% of the respondents said they had no plan to expand overseas at present, choosing to operate only in China.

For businesses that selected the Asia-Pacific region, the preferred market was Southeast Asia (61%), followed by Japan and South Korea grouped together (23%) and India (6%). The countries of Southeast Asia, with their large populations, have always been hot destinations for overseas investment by Chinese companies. Elsewhere in the region, the scientific research capabilities and high-end talent reserves of Japan and South Korea are attractive to unicorn companies.

Most of China's new unicorns are still relatively unknown in other countries. They face numerous challenges, particularly as they grow and their need for talent and other resources scale up. They increasingly find success by relying on managerial skill and effective use of the resources they possess. Not every Chinese unicorn will succeed; rivals may emerge from other countries to challenge or compete with them. But their rapid growth and global ambition suggest that they will not be unknown for long.



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