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#### Foreword from Accenture

### Pierre Nanterme

#### Chairman & CEO

The platform economy is emerging as one of the most powerful manifestations of the digital revolution, which we also refer to as the "fourth industrial revolution." Thanks to rapid advances in cloud, mobile and analytics, and the falling cost of these new technologies, digital platforms are creating the next wave of disruption, growth and breakthrough innovation.

Digital platforms bring together vast communities of customers and partners, including developers. They create markets of enormous scale and efficiency. And they enable new levels of collaboration between companies from different industry sectors that can result in the conception of entirely new products and services.

Indeed, Accenture's involvement in the FinTech market has shown us the power of platforms in driving radical new forms of lending, such as crowdfunding. And in our work for some of the world's largest industrial companies, we see how incumbent leaders are embracing platforms to extend into adjacent markets with new offerings.

However, the opportunity for digital platforms is perhaps most exciting for the small businesses that most countries rely on for economic and employment growth. In China, where we are actively supporting the B20 discussions this year, our research of small- and medium-sized enterprises (SMEs) found that nearly two-thirds generated at least 10 percent of their

revenues from platform business models. More than a third expect to generate in excess of 30 percent of revenues through platforms in the next three years.

Small enterprises are well placed to benefit from the large-scale marketplaces that platforms offer. But they are also well positioned to establish platforms of their own. After all, it is largely due to platforms that the most successful start-ups have reached US\$1 billion valuations after just four years when, on average, *Fortune* 500 companies have taken twenty years to do so.

Platform success is by no means guaranteed. New ways of doing business are required for both large incumbents and entrepreneurial small businesses.

Companies will need to partner, rather than go it alone. They will have to adopt radical approaches to create a compelling value proposition. They will need to reach new levels of personalization to satisfy customers. And, of course, they will have to put in place new ways of pricing and maintaining data security and privacy.

Business success will also depend on the wider enabling environment. Our country-by-country analysis shows that the conditions in which platforms can flourish are often lacking. As a result, government policies will be required to support platforms. For example, the digital savviness of customers is as vital as the sophistication of businesses. A willingness to embrace open innovation largely depends on bringing public and private sector

players together. This, in turn, will require higher levels of digital talent throughout an economy.

Accenture is proud to be an active participant in this year's B20 events in China and to further explore some of these issues as co-chair of the B20 SME Development Taskforce and as knowledge partner of the G20 Young Entrepreneurs' Alliance (G20 YEA). We hope this report, developed together with the G20 YEA, will prove beneficial for businesses by highlighting the factors that unlock success in a platform economy. And we hope it will be equally relevant and valuable for policy makers, who will need to adopt solutions that provide the right environment for digital platforms to thrive.





Pierre Nanterme Chairman & CEO

### Foreword from the G20 Young Entrepreneurs' Alliance

# Xia Bing

#### Chair G20 YEA 2016 China

Small- and medium-sized enterprises (SMEs) and entrepreneurs continue to be the driving force of innovation, growth and employment across the G20 economies. Together, SMEs and entrepreneurs employ two-thirds of the private sector workforce and account for 80 percent of net job growth in the G20. And with the rapid emergence of the digital economy, barriers to entry are being lowered, encouraging many more individuals to start businesses of their own.

The G20 Young Entrepreneurs' Alliance represents more than 500,000 young entrepreneurs across the G20 countries and the European Union, employing around 12 million people. Since 2010, the G20 YEA summit has gathered hundreds of entrepreneurs from the G20 countries, encouraging them to make use of G20 leaders' recommendations that help to promote entrepreneurship as a driver of economic growth, market renewal, job creation and social change.

In 2015, the Turkish presidency of the G20/B20 announced the establishment of the SME Development Taskforce, which places these issues at the heart of the agenda. This year, the B20 SME Development Taskforce, managed by our knowledge partner, Accenture, focused our discussions on how small businesses can enjoy the fruits of cross-border eCommerce. We believe that digital platform business models will play an important role in supporting the international expansion of SMEs.

Today, the platform economy is dominated by large digital brands. Some wield extraordinary power and high market valuations. Many of those platforms offer entrepreneurs access to large-scale markets through participation. Others invite small businesses to cocreate innovations with other parties in platformenabled ecosystems. And small businesses have the opportunity to create new platforms themselves. After all, some of the most successful platform businesses today were start-ups just a decade ago.

This report, which we are proud to publish with Accenture, demonstrates that, despite the opportunities, some key obstacles to progress remain. The enabling conditions supporting platforms are lacking in many economies. One of the solutions is to establish an electronic World Trading Platform (eWTP) to simplify regulations and harmonize customs barriers and tariffs. Another is to support the delivery of angel networks and the provision of alternative funding services for young entrepreneurs.

At the G20 and B20 meetings in Hangzhou and Beijing this year, the G20 YEA will be working with policy makers and business leaders to address the opportunity of cross-border commerce and the creation of digitally enabled platform business models. We hope that the ideas presented in this report will serve as a guide to those tasked with creating the ideal conditions for

SMEs to participate in and establish platform business models—conditions that will help them find and flourish in new markets at home and overseas.





Xia Bing Chair G20 YEA 2016 China

## **Executive Summary**

Platform business models are fast becoming the golden child of the digital revolution. As digital platforms disrupt and dominate markets to create communities of enormous scale, they deliver compelling customer experiences and offer new forms of innovation and value creation. Yet, most new platform businesses will fail unless players acquire a new mindset and business approach. We reveal the critical success factors that help entrepreneurs and incumbent companies achieve successful platform-based businesses.

#### Platforms are pervasive

Until recently, digital platforms were the preserve of technology and digital-born companies, such as Google, Apple, Facebook and Amazon, and of digital start-ups, such as Airbnb and Uber, that are fueling the on-demand or sharing economy. Now, resourceful entrepreneurs acting as digital partners—app developers, complementors or affiliate providers—can reap rewards from the platform economy. They can generate revenue, reduce costs, innovate products and services, or gain speed to market. And, as this report shows, they can do it anywhere.

Traditional incumbents, too, are developing their own platforms, working with innovative entrepreneurs and undertaking alliances or acquiring companies. For example, Philips is reinventing itself in the fast-emerging health technology market in this way.<sup>1</sup> Research suggests platforms' total market value is US\$4.3 trillion, with an employment base of at least 1.3 million direct employees and several million indirectly employed at partner companies that service or complement platforms.<sup>2</sup>

#### Success relies on five steps

Accenture has evaluated platforms across many G20 countries to determine what makes a platform business successful. We discovered five factors that generate the network effects and critical mass crucial to the success of platform ecosystems (proposition, personalization, price, protection and partners) and highlight the five underlying environmental enablers that are necessary for platforms to flourish (digital user size and savviness, digital talent and entrepreneurship, technology and governance, open innovation culture and policy and regulation).

In assessing the digitalization maturity of several countries, we found that not all countries provide an environment that is conducive to platform success. Our Platform Readiness Index shows that the United States, China, the United Kingdom, India and Germany top the rankings of those countries with the biggest opportunity to grow and scale digital platforms—and will retain their top five ranking in 2020. Countries such as Italy, South Africa and Russia are currently at the bottom of the table and must





rapidly introduce ambitious policies if they are to boost digital platforms and narrow the gap with leading countries by 2020.

#### Policy makers must act

Policy makers must appreciate that platform business models are becoming a key route for the growth and global expansion of small businesses and entrepreneurs, who are the driving force of job and wealth creation in most economies. Platforms are also becoming the principal route by which incumbent market leaders can enter adjacent markets and re-invent themselves in the digital era.

Policy leaders can circumvent limitations by fostering supply-side enablers of platforms, including the interoperability of data protection standards, new regulations adapted to the specificities of digital platforms that foster innovation and by enabling cross-border electronic trade development. In particular, clear rules across the G20 are needed on data privacy and security for the protection of digital assets. Policy leaders can also encourage demand side take-up by investing in digital infrastructure and consumer adoption, and establishing user protection and capacitybuilding programs for small businesses so that they can benefit from engaging with global platforms.

# Platforms create new avenues for both incumbents and start-ups

Traditional incumbents are faced with distinct challenges to compete in the platform economy—and entrepreneurs can help. Through careful consideration of their strategy, adopting new capabilities and transforming their operating model and culture, incumbents can gradually adapt their legacy businesses to be platform ready (see "How incumbent companies can succeed," page 21).

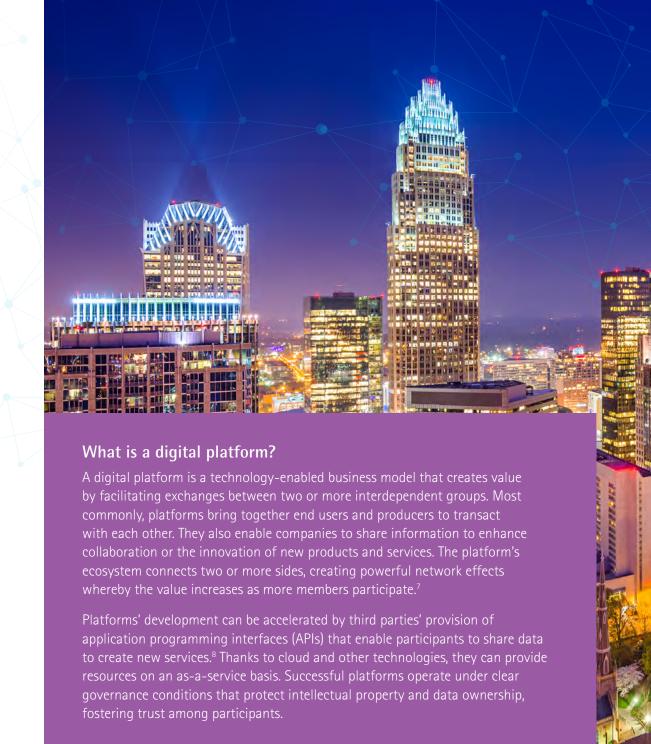
If entrepreneurs and incumbents alike can master the fundamental drivers of platform businesses, with the support of policy makers, they can not only take advantage of new avenues of profitability and growth, but also be part of the next wave of transformation within industries and countries worldwide.

### The pervasive power of platforms

Digital platforms are transforming market competition in all industries around the world and platform-based companies are gaining market share rapidly.<sup>3</sup> Entrepreneurs are ideally placed to play a variety of roles in the platform economy as a means to accelerate their own growth.

Although traditional incumbents have started to react, less than 15 percent of *Fortune* 100 companies have a developed platform model today.<sup>4</sup> But the trend toward platform adoption is expected to continue—IDC predicts that, by 2018, more than 50 percent of large enterprises will create or partner with industry platforms.<sup>5</sup> The platform revolution that began in the business-to-consumer (B2C) area through eCommerce, FinTech and circular economy business models<sup>6</sup>, is expanding into the business-to-business (B2B) space with innovation-based ecosystems and data-enabled business models, such as the industrial Internet of Things (IoT). This is mainly driven by companies shifting their focus from selling products to offering outcome-based services through digital platforms.

The concept behind platforms is not new. Shopping malls link consumers with merchants, and newspapers have connected subscribers and advertisers for more than a century. Now, the availability and convergence of affordable digital technologies is enabling companies of all sizes to embrace mobile and data and analytics while adopting a "cloud first" approach to redesign their business models. One of the advantages of digital platforms is their ability to introduce a new "payas-you-go" business model that enables efficient, low-cost speed to scale and the creation of new, richer customer experiences.





#### Three sources of discrete power

The power behind digital platforms lies with three distinct features. First, the network effect of bringing together market participants means that more customers attract a greater number of merchants and partners, and vice versa. This shifts the cost and risk burden of creating markets from the business to the network. As the network gathers its own dynamic momentum, the platform owner acts as a facilitator to spread that burden among a growing number of participants.

Second, the concurrence of technologies—cloud, automation, analytics, artificial intelligence, mobile and the industrial internet—is creating a new "as-a-service" economy, where services are dynamic, on-demand and targeted, and have a huge impact on cost to serve, investment levels and speed to market. By integrating business processes, software and infrastructure and making them available "on demand,"

large and small companies can benefit from plug-in, modular, scalable services. Entrepreneurs are particular beneficiaries here; without the constraints of funding the full costs of a platform business up front, they have access to new markets and distribution channels.

Finally, open and shared data can be mined intelligently by specialists, including those from adjacent industries, to create new forms of value. Insights might be generated from monitoring customer behavior at scale or from products or machines being used in the field. Indeed, huge volumes of data are being generated today and are estimated to double every two years to 2020. This new, collaborative and agile way of working is catching many organizations off-balance.

While it used to take *Fortune* 500 companies an average of 20 years to reach a billion-dollar valuation, today's digital start-ups can get there in four years. Digital platforms are largely responsible for this shift.

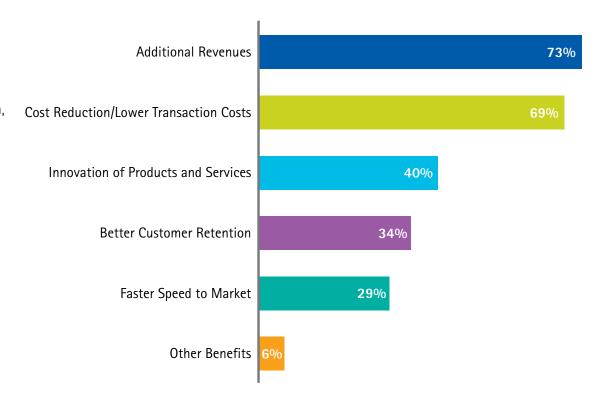
#### Platform opportunities for small enterprises

Platforms open up the potential for entrepreneurs and small businesses to generate demand-side economies of scale that would be otherwise far beyond their reach. More specifically, they can play an active role in the platform economy as:

- Platform owners: design and develop the platform, control intellectual property and decide how it will be run. Owners also manage users and partners who can add value to the core platform offering. For instance, Germany's Fidor Bank, recently acquired by French banking group BPCE, solicits the participation of community users and partners to enable both traditional lending and lending via peer-to-peer capabilities.
- Digital partners: team with platform owners to offer complementary products and services using application programing interfaces (APIs). For example, Fidor Bank maintains a close alliance with global payments provider, Currency Cloud, and extends multi-currency payment services through API integration with the provider.
- Producers or suppliers: act as merchants selling goods directly to consumers or to businesses in the marketplace. For example, individuals in the Fidor banking community supply credit to their community peers that are in need of finance.

A recent survey of Chinese SMEs suggests that additional revenues and cost reduction are the main benefits to SMEs from platform businesses (Figure 1).<sup>11</sup>

Figure 1. Platform effect on revenue and costs of China's SMEs



Source: Accenture Platform Survey, 2016

To succeed, entrepreneurs must determine whether they will act as platform owners, digital partners or suppliers. Entrepreneurs acting as platform owners need to consider a host of market factors and individual capabilities before deciding to launch their platform. One of the primary considerations is whether markets are contestable or if the barriers to entry and sunk costs are too high. In China, for instance, all new contenders to the search engine space have failed within three years as Baidu continues to hold a formidable market share.

Yet, newcomers with a compelling value proposition have forged their own success and disrupted markets previously dominated by incumbents. The opportunity is undeniable; business avenues that were previously beyond the reach of entrepreneurs are now accessible. The United Kingdom's VentureFounders is a platform owner that has opened up early-stage investments to a wider base of savvy investors—previously reserved for the likes of private equity, venture capital and angel networks.



Entrepreneurs acting as digital partners can help platform owners achieve scale by offering complementary products, growing alongside platform owners as a result. For example, Canada's Shopify, which provides cloudbased commerce solutions, expanded to about 150 countries within a decade of being set up. Entrepreneurs also benefit from the technical, financial and mentoring support of platform owners. For example, the United Kingdom's Swave start-up is developing a consumer financial literacy app and benefits from its access to Lloyds Bank's digital experts and data for building the product.<sup>12</sup> Entrepreneurs will need to adapt their business models to offer services "on demand" – for instance, accounting as a service. Further, platform owners seek to engage in an end-to-end collaboration in which the digital partner assumes some responsibility for the

success of initiatives and accepts compensation based on the outcomes it commits to deliver.

Entrepreneurs acting as suppliers on a platform have access to a new distribution channel and benefit from additional revenue and reduced transaction costs, among others. In particular, eCommerce platforms facilitate suppliers' participation in global value chains due to improved access to market information and marketing skills.<sup>13</sup>

Participating in platforms is not without risk and requires entrepreneurs in all roles to reassess their strategies, capabilities and resources. Small companies and entrepreneurs need to rethink traditional product-driven approaches to become more customer experience-driven. Complexities arise around monopolies and competition,

ownership and intellectual property rights. Open architectures and data sharing place an even greater emphasis on managing data privacy and security for customer data collection and usage. Finally, platform success often depends on the ability to form partnerships with players, often in adjacent fields, to create and deliver new customer experiences. Platform business models require continuous adaptation and agility to maintain the equilibrium of the two-sided market, which in turn generates positive network effects.

Ultimately, entrepreneurs must plan for the long term and acquire the critical mass and scale that is integral to platform success. Smaller players can survive or resist being acquired when operating with a strong, niche offering, but the ability to access growth capital and scale fast still lies at the heart of platform success.

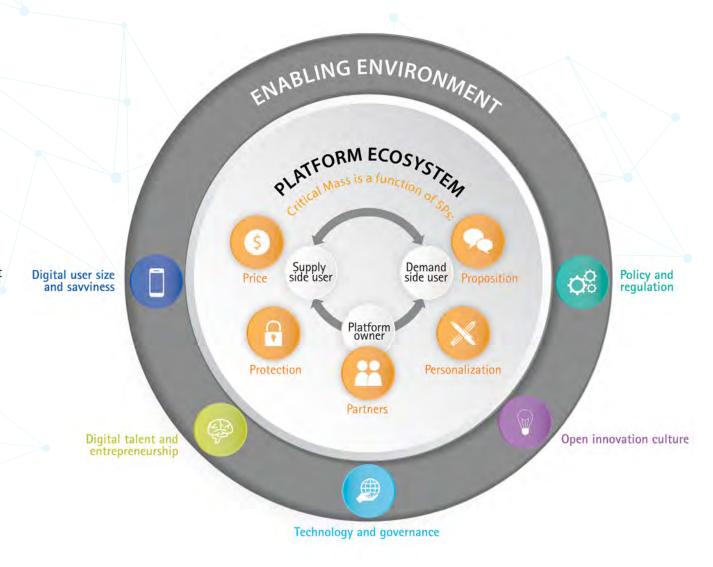
#### A winning formula

Two essential dimensions must be mastered to develop a successful digital platform business (Figure 2):14

- Create a dynamic platform ecosystem that enables businesses to achieve critical mass:
   Critical mass is dependent on mastering five distinctive capabilities that we call the five Ps: a differentiated value proposition, service personalization, market responsive pricing, effective cyber protection, alongside taking advantage of the scalability power of ecosystem partners.
- Foster a supportive enabling environment:

  There are factors and conditions within the broader economy that are required for platforms to emerge and grow—digital user size and savviness, digital talent and entrepreneurship, technology and governance, open innovation culture and public policies.

Figure 2. Accenture Platform Economics Model



Source: Accenture Research; platform economic framework (inner circle of the model) adapted from Pipelines, Platforms, and the New Rules of Strategy.

### Create a dynamic platform ecosystem - Five ways to win

Competition in the platform economy will be fierce, especially as companies from adjacent sectors extend beyond their traditional markets. Yet, although there is no "one-size-fits-all" platform model, Accenture has identified five ways a dynamic ecosystem can drive platform success.

Platform failure is surprisingly hard to track. Fortune notes that nine out of 10 startups fail<sup>15</sup> while CB Insights reports that more than 70 percent of all failed technology companies have been in the internet sector—and this percentage has been consistent over the last few years. On the failure list, online marketplaces rank second after social companies.<sup>16</sup>

Industry experts we interviewed said that less than 10 percent of start-up platforms will succeed to become profitable independent entities—even lower in markets such as China where the platform market is highly competitive. For example, the vast number of online lending platforms in China alone was reported to be in the range of 1,500 to 1,700 in early 2015.<sup>17</sup> It is questionable how feasible it will be for this number of peer-to-peer lending platforms to scale in a fragmented market that is further fractured by offline lending institutions.

Barriers to entry are becoming higher. Large platform players are expanding geographically, shifting from business-to-consumer to business-to-business (examples include Airbnb, Booking.com, Expedia and Uber), or developing online-to-offline models that move them from digital channels to physical stores (like Amazon, DHgate or Paytm).

Large companies will also be challenged to adapt their culture, practices and operations to suit the particular demands of customers and partners in the platform world.

Adjacency between industries, sectors and countries will increase in the coming years, bringing more and more players into direct competition with each other. For instance, Google has expanded from search to maps, a mobile operating system and autonomous cars. In financial services, digital wallet products from Google, Apple, Facebook and Amazon ("GAFA") as well as Baidu, Alibaba and Tencent ("BAT") have encroached on the territory of digital players like Paypal, as well as traditional banks. In India, Flipkart has added a mobile wallet to its eCommerce platform, and mobile payments service, Patym, has entered the digital commerce marketplace with a banking license and its own eCommerce service.

The challenge does not end here. As the market has shown, the power of network effects can act in reverse and destroy value at explosive speed—companies can miscalculate one or more sides of the multisided marketplace or quickly lose their critical mass to a peer platform, such as Orkut's closure in 2014 as social media enthusiasts shifted to Facebook.<sup>19</sup>

Smarter platform companies are now creating new revenue streams far beyond where they started—they are pursuing, for instance, an 85 percent dominant market share in virgin territories rather than a 5 percent market share in adjacent territories.

- Mahesh Murthy, Founder, Pinstorm and Co-founder, Seedfund, India.

# Create a dynamic platform ecosystem: Five ways to win

Attracting a critical mass of users—on both demand and supply sides—is important to create value at scale. Frequently, platform owners must emphasize critical mass over profit generation in the initial stages of platform development, while maintaining a focus on value creation. For example, Alibaba's Taobao platform used free listings to gain user momentum. Although the platform began to charge once it achieved critical mass, sustained value has been achieved through the personalization of the user experience, a wide range of horizontal services and the protection of customers by addressing security and counterfeit issues.

As Figure 2 shows (page 12), critical mass is a function of proposition, personalization, price and protection, orchestrated by the owner with an ecosystem of partners. Each of these five Ps takes on new meaning as companies move from traditional "pipeline" businesses (that succeed by optimizing the activities in their value chains, most of which they own or control) to platform businesses (that bring together consumers and producers).

# Proposition: Present a compelling solution through modularity

Traditionally, proposition is about the value produced by companies and sold to consumers, but in the platform world it is about users creating value for other users, facilitated by the owner.<sup>20</sup> A platform requires continuous innovation in terms of value proposition and business model to create superior value for users, suppliers and partners in the ecosystem. For example, China-founded DHgate.com's B2B proposition, "from factory

to global customers," is realized through a crossborder trading ecosystem—representing logistics, payments, internet financing, and technology innovation capabilities. Sellers benefit from increased margins with no middlemen, a shorter business cycle and extended global reach, along with strong local language services. Buyers enjoy a seamless and secure bulk purchase experience, supported by sellers' customer service representatives trained by DHqate.

The use of APIs is critical to market proposition, enabling a modular approach to platform development and revenue growth.<sup>21</sup> For instance, Salesforce reportedly generates 50 percent of its revenues through APIs, eBay nearly 60 percent and Expedia a substantial 90 percent.<sup>22</sup>

#### Personalization: Center on the user journey

From a customer point of view, the driving force behind platforms is the personalization of an experience that is less oriented around products, as in the traditional business world, and more around the outcomes. Targeting individuals and organizations through tailored experiences across all channels at scale relies on mass personalization. The aim is to understand customer intent and then dynamically and uniquely tailor experiences to each customer and context in a seamless manner across channels. For example, Amazon uses "interest and intent collection management tools" to encourage buyers' "stickiness" (see "Data-driven personalization at Amazon"). The platform's ability to use customer data to personalize interactions will vary by country and even region based on data privacy laws.



#### Data-driven personalization at Amazon

The success of Amazon is data driven and its use of customer data to predict market needs and optimize business operations helps it to maintain market leadership. The company draws on predictive analytics to power recommendations that help it upsell. Service features, such as #AmazonWishList, enable customers to tailor buying lists that create stickiness, drive engagement and improve buyer retention.

Predicting purchases based on behavioral patterns of a customer's previous transactions on Amazon is also set to create a more personalized approach. A patent for anticipatory shipping will take data about a customer's browsing and buying habits on the site, alongside real-world information such as telephone inquiries, to ship goods before a customer has even made the decision to buy.<sup>23</sup>

The combination of voice control and artificial intelligence offers a further opportunity for the hyper-personalization of the shopping experience. Amazon's Echo devices, with the built-in voice-enabled Alexa platform, enable customers to order anywhere, anytime, while providing Amazon valuable insights on user behaviors.



# Price: Engage participants through sophisticated, dynamic pricing

Where traditional business pricing policies merely aim to recover charges from customers, pricing strategies can differentiate platforms by presenting opportunities for greater flexibility and reward. A freemium approach means users have easy, generally free, access to a platform before deciding whether they want to be buyers. Alternatively, pay-as-you-go pricing can be combined with fixed subscription fees. Surge pricing is increasingly used to manage peak demand, in contrast with discount pricing in periods of low demand. For example, Airbnb has rolled out a smart pricing system for all hosts on its platform that adjusts room prices based on changes in demand in real time.<sup>24</sup> A platform's flexibility with surge pricing will depend on local rules, such as the legal directive for Uber and others not to charge beyond government-prescribed rates in India.<sup>25</sup> More generally, pricing on platforms depends on price elasticities on the demand side versus the supply side: the side with the greater elasticity often ends up being "subsidized" by the other side, at least during the period of initial launch of the platform.

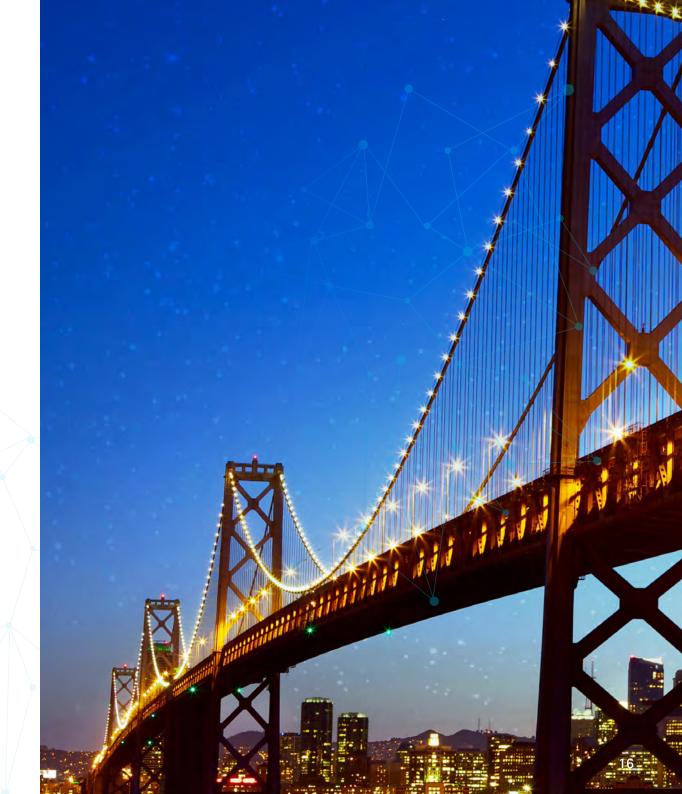
Scale can transform pricing strategies. China's Alipay offers online payment rates that are a fraction of local and global peers, being on average 0.6 percent compared to Paypal's 2.9 percent. But the company is profitable due to a user base that is two and half times the size of Paypal's and payment volumes that are seven times higher than its American peer. Data monetization remains one of the most promising opportunities of platforms (see "Data monetization—the quintessential competency," page 18).

# Protection: Embed trust at the heart of the platform

Cyber security is key—customers need to be sure the right safeguards are in place. Authentication of community members and their activities is the primary responsibility of the platform owner and partners, far more than in an offline business where physical verification is fundamental. Protecting a platform needs to account for both prevention and compensation. Handled correctly, platform owners can differentiate themselves with their commitment to protection. For instance, China's DHgate.com, the B2B eCommerce platform, has announced 2016 as the "Year of Trust and Safety." The company's partnership with Authenticateit around product tracking, anti-counterfeit technology, upgrades to the merchant rating system and an escrow system, aims to build buyers' confidence. Additionally, DHgate.com's compensation measures include a collateral fund, buyer inconvenience reimbursement and penalties for fake shipping numbers.

# Partners: Collaborate for scalable capability and agility

The vital role of digital partners should not be underestimated—whether as product or service complementors, payment providers or app developers—in helping to complete the platform offering and jointly fulfill customer needs. This contrasts a traditional company whose vendors are often detached from business outcomes. And partners can support platform owners to scale quickly. This is well illustrated in the open innovation that is behind many of the new FinTech companies' approaches. For example, the modular design of U.S.-based Quicken means that large parts of the production chain are conducted by external providers, including sophisticated functions, such as predictive and specialized fraud analytics, and not only simple back-office activities.<sup>26</sup> In its simplest form, collaboration may be a joint go-to-market approach, such as the referral partnerships of the UK's NoviCap with TransferWise and Kantox on foreign exchange services for SMEs, and Sage on accounting software.





#### Data monetization—the quintessential competency

Data generated by platforms proliferates—whether from analysis of user experience, behaviors, service consumption or productivity measures. In turn, this creates a multiplier loop, where the value of data multiplies with the number of users and partners in the ecosystem. Platforms enable the gathering of data and the generation of real-time insights on customers, market trends and operations. Indeed, the rich volumes of data and the speed of intelligent service enhancement that is feasible on platforms are possibly beyond reach of the traditional business model.

The largest data-driven opportunity is the ability of a platform to capture value by creating new products and services, improving user experiences, managing risk and increasing productivity. These are avenues of internal monetization where data-driven enhancements are generated within the company. The impact is difficult to measure and the opportunity is often not maximized. Data monetization can also be achieved by providing data-based services to third-parties—which can be a high-margin business for platform players.

Although the largest opportunity will be internal monetization, the potential for external monetization is high if the platform holds unique data and has the capability to package innovative services around that data for third parties (Figure 3, page 19). While some platforms are primarily transaction oriented and others are strongly data oriented, the opportunity from data monetization is undeniable for all platforms.

The quality, uniqueness and richness of data are not the only determinants of internal and external monetization. Technology and workforces must have the capabilities to draw insights from the data. Platform players must adhere not only to privacy regulations, but also meet ever-increasing customer expectations around trust, privacy and security. Platform owners must safeguard usage and data rights, and ensure all participants conform to the local regulations for the jurisdictions in which the platform operates.

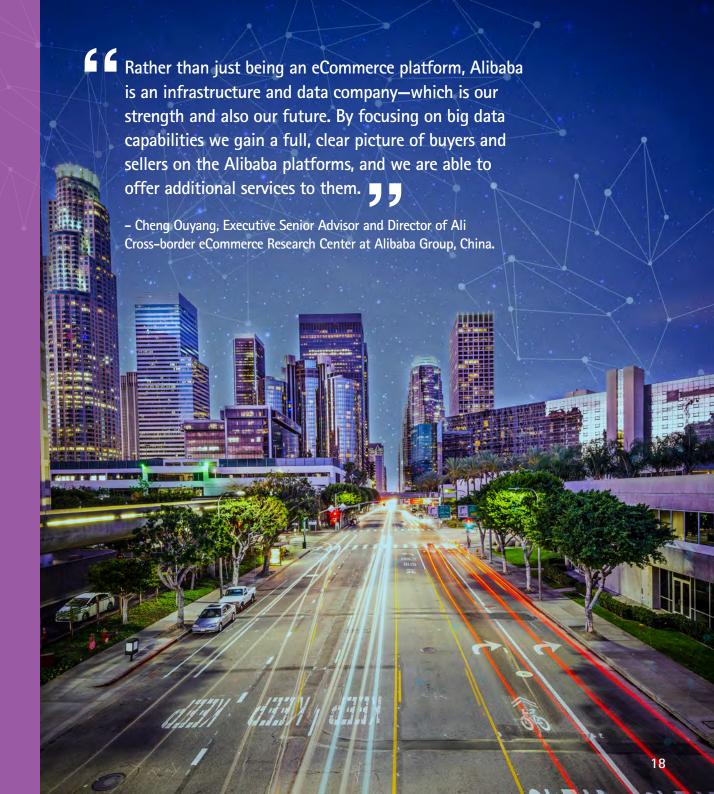
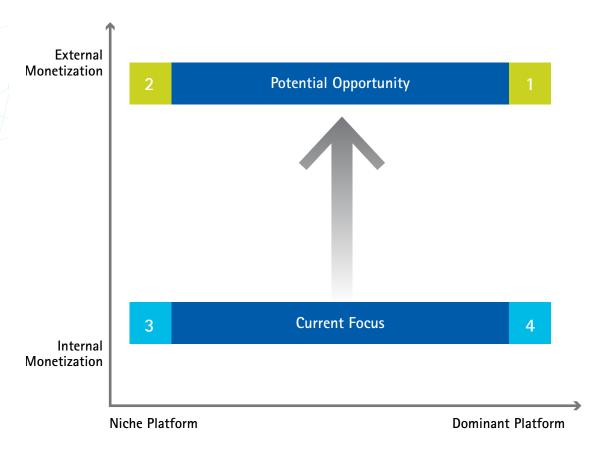


Figure 3. Data Monetization Opportunity



- Alibaba's data-driven advertising services to third-parties on its various online marketplaces contribute 49 percent of total revenue.
- Tickled Media's market research solutions sold to large corporate clients tap into the platform's parenting network and aims to contribute 50 percent to the revenue of the data business unit.
- Fidor Bank's "karma score" of individual borrowers that enables peer-to-peer lending on its community platform by improving credit risk assessment.
- Amazon has sophisticated data-driven personalization programs to upsell products and services to its platform users.

Alibaba's asset-light model means China's biggest online eCommerce company can invest in next-generation technologies and services, such as cloud computing and big data, to maintain its competitive edge. Data—and better understanding of it—is integral to the company's operations. More than 37 percent of Alibaba's workforce is science, technology, engineering and mathematics (STEM) talent, mainly employed in database management, machine learning and artificial intelligence. The data insights gained are being monetized in a number of different ways. For instance, Alibaba uses data to derive 49 percent of its group revenue from advertising services, including third-party advertisers. "Super-ID" under the Dharma Sword initiative tracks the preferences of 630 million users, the vast majority of China's internet population. Sellers pay a monthly fee for Alibaba software that they use to analyze relevant data and personalize services for customers. Smart logistics data predicts supply and demand and guides platform sellers to pre-transfer merchandise to designated warehouses where there is strong demand. Finally, Alibaba is developing a unique enterprise credit system by bringing together data on sellers' financial records, including affiliate Ant Financial's records, past transactions and information from partners, such as banks.

Unique data can be of immense value to businesses and societies outside the platform business. For example, the Singaporeheadquartered Tickled Media, a community platform for parents in Asia, has more than six million users across India, Indonesia, Malaysia, the Philippines, Singapore and Thailand. The company created a separate unit called the Asian parent Insights that aims to drive one-half of its revenues from providing data on the niche segment, the parents, to large companies such as Nestlé, Pfizer, Unilever and others. The data business unit can create on-demand market research solutions faster than any consumer survey company can today by running surveys, competitions or testing products and marketing strategies among its extensive user network on behalf of corporate clients.<sup>27</sup>

Source: Accenture Research



### How incumbent companies can succeed

Traditional companies can successfully embrace platform-based business models if they align their operating model and culture, and work effectively with entrepreneurs in the platform environment.

Company age is irrelevant when it comes to creating a platform business. Apple was more than 20 years old before it launched the iTunes and App Store platforms. General Electric was a century old when it launched its software for the industrial internet, Predix™. Incumbents are well positioned to make the best use of their current customer base, brand, market expertise and industry know-how when launching a digital platform. Yet, incumbents must be mindful of the specific demands of a platform business.

It is essential to identify early on which areas of the traditional business are prime for disruption and where the platform model can be a growth engine that generates network effects. For some, this means freeing themselves from traditional industry vertical boundaries; for instance, the Bosch ConnectedWorld of IoT-empowered solutions in energy, industry, transportation and buildings. For others, a vertical depth is integral to the strategy, such as the Philips HealthSuite digital platform that brings connected care for patients and providers.

Each platform plan needs to be supported by new technology capabilities, especially APIs, and take account of their integration. This is where the partner ecosystem is critical to success. Other technology capabilities include mobile development platforms, the Internet of Things, infrastructure and cloud services, data-driven intelligent operations, rapid prototyping and testing capabilities, and real-time integration between the platform and the rest of the business. For example, Siemens MindSphere, a cloud platform for industry, collects and analyzes data

that is created during production processes at industrial companies, as well as during the delivery of services. Based on this data, companies have new opportunities to further optimize their processes—and to develop new data-driven business models. Success of the platform is founded on Siemens helping its MindSphere corporate clients embrace new data capabilities, including the development of customer-specific business models and integration of different IT systems.

Operating model transformation is also a necessity. Incumbents must design new open organization structures and processes. Using a dual operation model can address the tensions between legacy organizations and processes on the one hand and new infrastructure on the other, allowing the two to merge over time. Incumbents must attract and motivate talent—specifically from the developer community—and promote a creative culture.

Governance of platform businesses is different than in traditional business, due to the way data and transactions are shared between participants. Incumbents need to reconsider their governance plan specifically around intellectual property and data ownership to manage a platform's open ecosystem and shared licensing models. For example, data governance was a key consideration in the implementation of Walgreens' Connected Health platform to secure the full spectrum of patient data.<sup>28</sup>

By embedding a collaboration culture to innovate and co-create with start-ups and entrepreneurs in the ecosystem, incumbents can develop viable platform

businesses. Bank of New York Mellon runs NEXEN, an open-source, cloud-based technology platform that enables it to develop microservices in API format. NEXEN, together with private cloud and big data components, is expected to raise the bank's bottom line by around 10 percent in 2017. Its success is attributed to an early cultural change transformation that attracted new millennial talent, encouraged employees to use design thinking, and effectively migrated legacy technology to the NEXEN platform.<sup>29</sup>

### Create the underlying conditions - Five policy actions

Even with the right conditions in place, platforms rely on supportive underlying conditions. Our research found that China, India and the United States create the best environment for platform growth. For these countries, size matters, but five factors can influence whether platforms flourish.

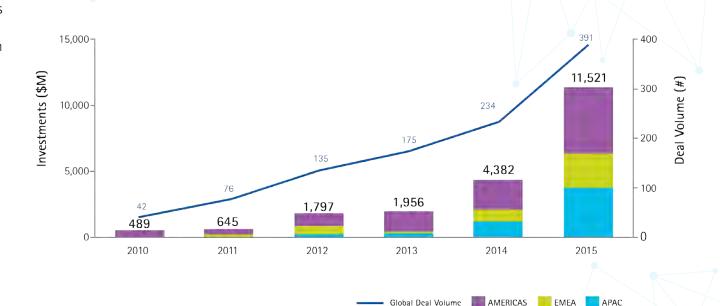
Accenture analysis shows a clear correlation between the health of an economy's platform environment enablers and the levels of platform investment and activity. Our assessment of selected G20 countries shows significant regional variations in platform readiness. Countries showing the highest platform readiness—China, the United States, India, the United Kingdom and Germany—will enjoy higher levels of platform activity and harvest related economic benefits.

Using the Accenture Platform Readiness Index and publicly available information, a number of digital dimensions were evaluated by research experts along a scoring range to better assess the digitalization maturity of companies across all industries (see "About the research," page 30).

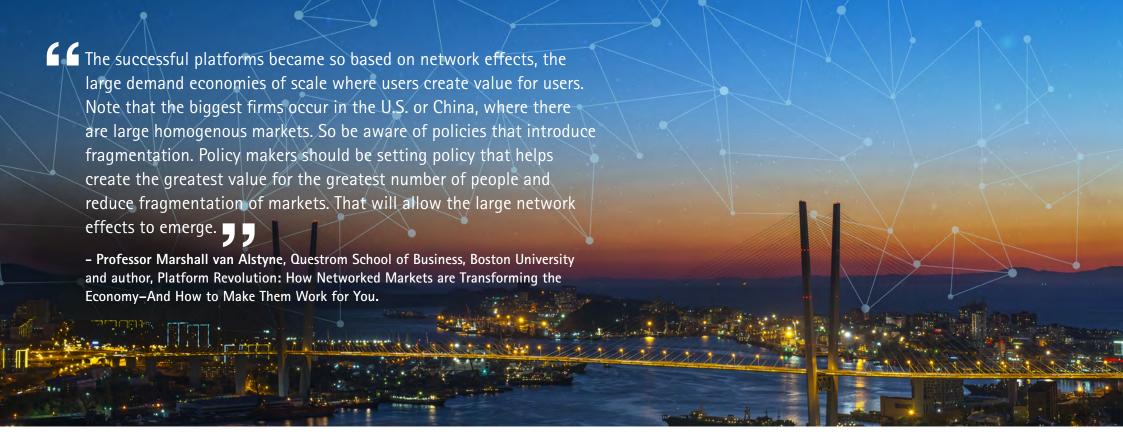
More than US\$20 billion was invested between 2010 and 2015 in the course of 1,053 publicly announced deals in digital platforms (Figure 4). Much of the growth took place between 2014 and 2015, with investments doubling in 2015.

North America is the biggest digital platform investment region by far, followed by Asia Pacific which accounts for 33 percent of global investment, up from just six percent in 2010. China has the lion's share of investment in Asia Pacific. These findings are in line with a study on the global distribution of platforms from The Center for Global Enterprise that suggests Europe is significantly lagging behind while the United States and increasingly Asia are home to a large and diverse group of platform companies.<sup>30</sup>

Figure 4. Investment in Digital Platforms



Digital platforms cover online marketplaces and financial services platforms Source: Accenture Research based on CB Insights, Tracxn and CrunchBase data

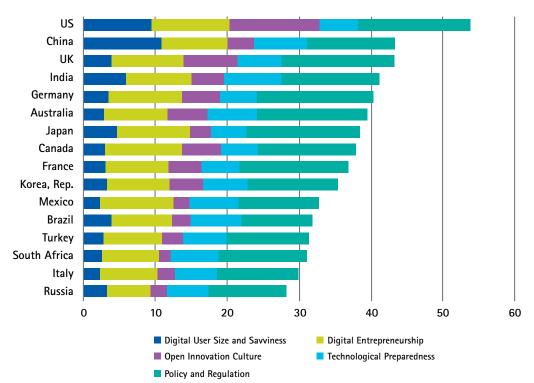


The national economic, business and regulatory environment in which digital platform businesses are founded determines how they develop and scale. Each country—driven by its city or regional clusters—appears to be exporting its own local competitiveness to the global platform economy. For example, the New York area is home to a high number of FinTech unicorn platforms as a natural progression of its strength in traditional financial services. Yet, five common success factors stand out:

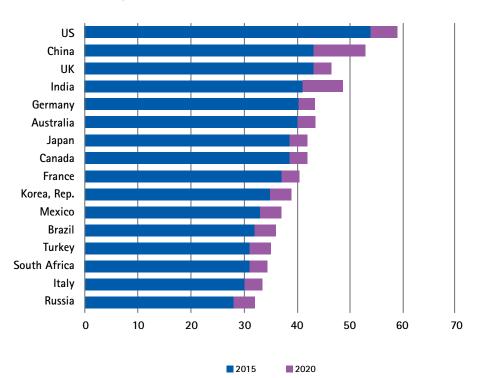
- Digital user size and savviness: The scale of the market matters; countries with a large installed digital base and uniform culture, language and regulations have a competitive edge.
- 2. Digital talent and entrepreneurship: Science, technology, engineering and mathematics (STEM), entrepreneurial and creative skills are fundamental in enabling digital innovation. It is vital for governments to focus on nurturing these skills in their educational priorities, and for businesses to locate themselves based on talent pool availabilities.
- 3. Technology readiness: The status of technology and digital assets, including levels of connectivity and investment in next-generation technologies—such as the industrial internet and artificial intelligence—will influence platform generation, growth and scale.
- 4. Open innovation culture: Increasingly, innovation— embedded in business culture and in how the platform operates—relies on organizations partnering with developers or service complementors. Large companies need to design new open organization structures, processes and governance to manage platforms' open ecosystems, while embedding a collaboration culture. Governments need to foster innovation hubs, bringing together universities, laboratories, start-ups and large businesses.
- **5.** Adaptive policy and regulation: Rapid speed of change demands proactive and participative policy making, working jointly with platform players on complex areas, such as data privacy, blockchain or cybersecurity.

Figure 5. Platform Readiness Index—Current and Future State

#### 2015, Factor Components



#### 2015 and 2020, Overall Index



Source: Accenture Research

#### **G20** platform readiness disparity

Although a platform often operates globally, conditions in the local economic, cultural and political environment influence its early development. G20 countries show differing levels of readiness on the index overall and for each of the five factors (Figure 5). With the exception of those in the top five ranking—the United States, China, United Kingdom, India and Germany—European and emerging markets lag behind on platform readiness. This comes as no surprise given the fragmentation of Europe's

digital market and its inconsistent levels of entrepreneurial and innovative culture. A corrective step to such market fragmentation is the European Union's proposed Single Digital Market initiative, with its aim to move 28 national markets into a single one.<sup>31</sup>

#### Not only size matters

China, the United States and India clearly benefit from their large base of digital users and high level of user savviness, particularly smartphone usage. Further, India and China are likely to show the greatest improvement by 2020, due mainly to increases in the online population and the improvement in supportive public policies. While size matters, these top-ranking countries also have the other requisites in place—namely, high levels of digital entrepreneurship and an open innovation culture that is ripe for platform ecosystems to come together and its multiple stakeholders to collaborate.

The United Kingdom and Germany score high on digital user base and savviness. These two countries outpace Brazil's larger user base in driving platform activity,

mainly due to their notable technology readiness and pro-innovation policy and regulation. In particular, the FinTech space has seen promising platforms emerge from the United Kingdom and, more recently, Germany, supported by the participative policy making of their respective governments.

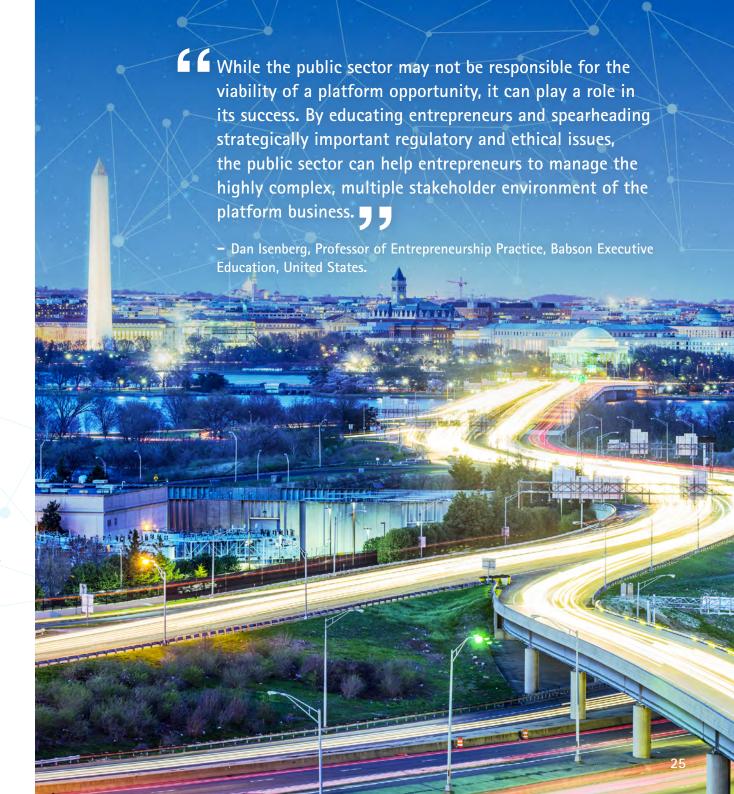
Russia ranks last despite its high score for digital user size and savviness. The current state of entrepreneurship, technology and policy readiness in Russia does not provide a sufficient foundation for platform growth. In a similar vein, the situation in Italy and South Africa has placed them in the bottom range of the country ranking.

#### Implications of national platform readiness

A country's position on the Platform Readiness Index has implications for platform owners and partners, as well as policymakers. A low score does not imply that platform owners and partners cannot succeed, but they have to carefully analyze the specific strengths of their local platform environment in designing their business strategies.

#### What do businesses need to know?

Businesses that are designing platform growth strategies must begin by assessing the size of the digital user market. Early in their growth cycle, platform owners need to scale through expansion into larger markets if they are not already located in one. When evaluating digital user savviness, platform players will need to encourage and incentivize digital behaviors in users, particularly in markets with a low willingness to transact online. For example, the peer-to-peer insurance platform, DarWinsurance, plans to offer incentives to Italian users to encourage online insurance behaviors to address their low digital adoption.





To access digital talent and entrepreneurship, platform owners will have to locate key competencies based on talent pools. For example, Apple is establishing a new iOS App design and development accelerator in Bengaluru, the home of India's start-up scene. Apple's team will work to inspire and instruct developers on leading practices and transform the design, quality and performance of their apps on the iOS platform.<sup>32</sup>

#### What should policy makers consider?

Policy leaders can help develop country platform readiness by using technology and governance—strengthening digital assets across the nation, translating national assets to regional capabilities and infrastructure and developing industry-specific initiatives. For example, the government-sponsored "India Stack," an initiative for the financial services industry. The initiative includes an open API, the Aadhaar (unique identity system) authentication API, which brings together a number of additional layers, such as e-KYC (know your customer), digital signature, unified payments interface and a consent layer to share personal data. The creation of this digital infrastructure is expected to boost the platform start-up ecosystem in India.<sup>33</sup>

To foster an open innovation culture, governments can incentivize collaboration between different players in the environment while setting out initiatives to

encourage innovation. For example, policies and programs introduced by the Chinese government to enable the start-up environment ("Internet Town" in Hangzhou), a go-global strategy (Israeli-Chinese connection), and a technology incubator center (Shenzhen), among other factors, have encouraged platform owners in China to adopt open innovation strategies and partnerships with local start-ups.

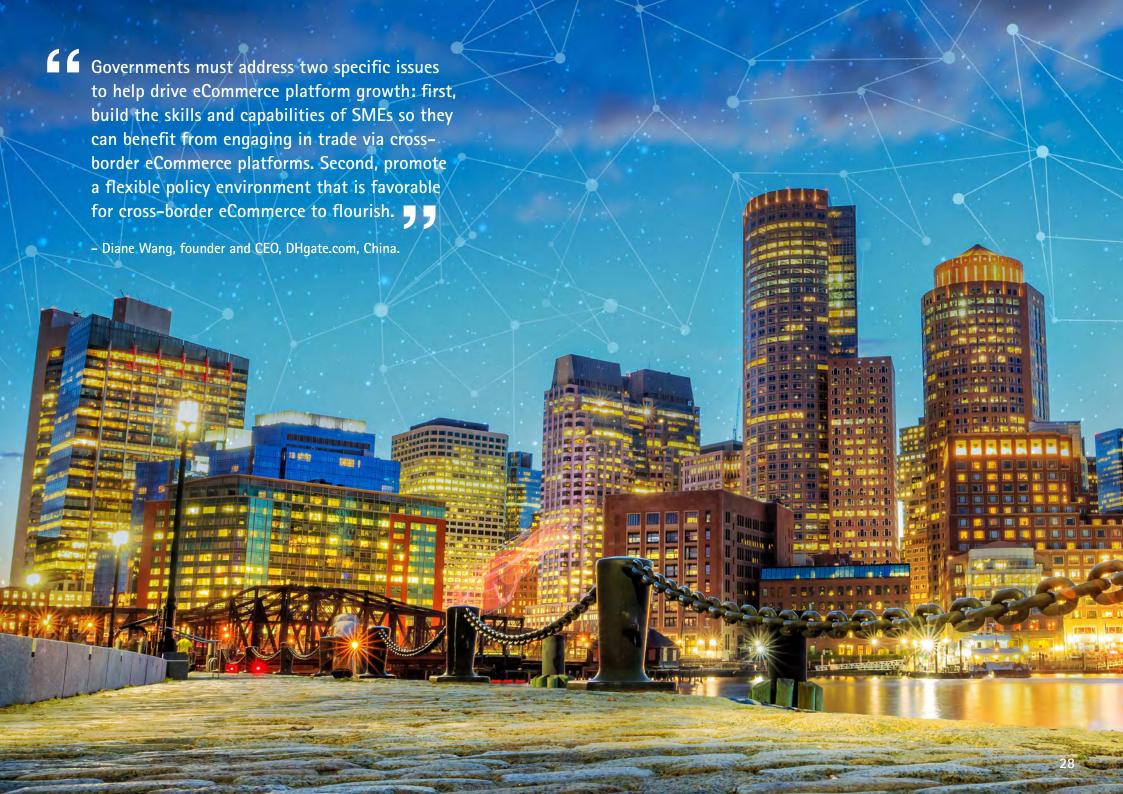
Finally, more proactive and participative policy making is the direct remit of governments to help drive platform growth; in particular, five key dimensions can make a difference (see "Recommendations for policy makers," page 27).

### Recommendations for policy makers

#### Five dimensions are critical to enable the development of platforms.

- 1. Ensure the interoperability of standards and mutual recognition of rules on data protection: Today, data localization and disparity over data regulations, in particular over data privacy and data security, risk limiting consumer choice and driving up the cost for platforms to operate globally. This limits their ability to gain critical mass. Greater effort is needed to harmonize data privacy and data security legislation. Accenture research shows that more than two-thirds of Chinese SMEs surveyed cite this issue as one of their top three priorities to facilitate participation in platforms. Ensuring smooth cross-border data transfers will be critical to the development of digital platforms across the G20 countries and beyond. Governments must address the issues of data and intellectual property ownership and "portability" of personal customer data across platforms.
- regulations adapted to the specificities of digital platforms: Regulations need to balance the protection of consumers, risk control and the development of innovative solutions by entrepreneurs and small businesses. Regulators should adopt more strategic approaches to future regulation to encourage experimentation with new technologies and business models. This approach will give industry the freedom to break new ground and encourage creative solutions, while helping to reduce investment risk. An example is the United Kingdom Financial Conduct Authority's "regulatory sandbox" in which eligible start-ups

- can test ideas that do not easily fit into the existing regulatory framework, while the FCA provides oversight to ensure that consumers are appropriately protected.<sup>34</sup>
- Another critical dimension is price regulation, as extraordinarily low prices can exist in the platform economy due to the specificities of pricing in this environment and require a new policy architecture. Similarly, emerging near monopolies due to the "winner take all" effects of digital platforms will not be toxic as long as markets remain "contestable." Labor regulation is also vital, as platform partners require a status which is neither the traditional employee/employer model, nor the completely independent business/business relationship.
- 3. Foster public-private dialog to incubate more effective rules and business environment for cross-border electronic trade: eCommerce is a game changer for entrepreneurs and SMEs to access international markets, but requires greater harmonization of taxes and standards, consumer protection, contract laws and the development of an internet and logistics infrastructure to grow. The creation of an eWorld Trade Platform (eWTP), which has been initiated by B20 China, promotes public-private dialogue to improve the global business environment for eCommerce, which can benefit SMEs in particular.<sup>35</sup>
- 4. **Invest in digital infrastructure:** G20 countries differ in the prevalence of reliable, low-cost, high-speed broadband and the level of consumer trust in transacting online, limiting the opportunity in markets for the creation of digital platforms. Focused government programs can accelerate internet penetration and adoption. For example, the Digital India program launched by the government in 2015 drives rural high-speed internet development, the delivery of digital services and digital literacy. The EU's Payment Services Directive (PSD2) will empower start-ups to expand customer reach and encourage innovative business models, especially platforms focused on the customer experience, as all interactions will go through APIs.<sup>36</sup>
- 5. Establish user education and protection and capacity-building programs for small businesses to benefit from global platforms: Governments should consider programs for educating users on crowdfunding and peer-to-peer and marketplace lending platforms to enable adoption and growth. Such programs should include initiatives on consumer protection and redress to improve consumer confidence in digital transactions. G20 economies can also develop capacity-building programs. For example, the "MSME Marketplace" for micro, small and medium enterprises proposed by the Asia-Pacific Economic Cooperation—including cross-border eCommerce training (CBET) that debuted in China in 2014.<sup>37</sup>





### Unlock trapped value with digital platforms

# Entrepreneurs, incumbent large companies and policy makers all have a role to play to orchestrate a vibrant platform economy.

Platform disruption is not new. In the nineteenth century, the new technologies of electricity and steel smelting supported the development of the platforms of the day: factories. These new platforms united workers, producers, suppliers and distribution channels in ways that released value that was trapped in pre-existing forms of production. New ecosystems unlocked that value by improving the efficiency and scale of manufacturing. And those same ecosystems also enabled the innovation that resulted in the variety of goods that changed not just industry, but wider society.

Today's platforms are enabled by new digital technologies. Their ecosystems also involve great scale, bringing together customers, producers and innovators. Beyond scale, digital platforms use data to create value in new ways, resulting in entirely new products and services.

Just as in the early days of factories, a proliferation of platforms will result in high levels of failure and consolidation. And just as in the era of industrialization, some economies will outperform others due to the enabling factors they have put in place.

Our analysis of platform critical success factors shows that companies can begin to use digital technologies to release the trapped value now residing in the new ecosystems and markets that platforms are creating. But business leaders, entrepreneurs and policy makers must recognize the wider significance of digital platforms that will not merely create new opportunities for individual businesses, but transform entire sectors and economies. Platforms will reshape the way we produce, consume and do business. And, as history has shown us, today's digital platforms can open up the potential for small businesses to reshape the industrial landscape.

The task ahead is not just reimagining new business models and markets, but also appreciating the role of digital platforms in the transformation of economies worldwide.

### About the research

Conducted between January and June 2016, Accenture undertook research and analysis on behalf of the G20 Young Entrepreneurs' Alliance. The research program included:

- In-depth interviews with 50 leading experts, platform owners, platform partners and other relevant business leaders, venture capitalists and academics from eight priority G20 countries (Canada, China, France, Germany, India, Italy, United Kingdom and the United
- States); approximately half of these interviews were conducted via the collaborative online knowledge platform, 10EQS.
- Analysis using the Accenture Platform Readiness Index, across 16 countries (Australia, Brazil, Canada, China, France, Germany, India, Italy, Japan, Korea Republic, Mexico, Russia, South Africa, Turkey, United Kingdom and the United States).
- Quantitative survey of more than 100 small and medium businesses in China represented equally by traditional industry and emerging industry sectors (for example sensors, big data and mobile internet).

Figure 6. Five Factors of the Platform Readiness Index

# DIGITAL USER SIZE & SAVVINESS

How well prepared consumers and businesses are to operate in the the digital space – measuring access and usage of online channels and performing any activity other than voice calls and messaging.

- Adoption of intelligent devices/services
- Access to internet and broadband connection
- Use of online channels by businesses and consumers
- Go-to-market use of online channels

## DIGITAL ENTREPRENEURSHIP

How well prepared the workforce is to develop and implement new platform-related ideas.

- Digital talent
- Creativity and capacity of innovation
- Entrepreneurial activity

#### **TECHNOLOGY READINESS**

The overall status of technology and level of digital assets in the economy that will enable digital platforms to generate, grow and scale.

- Comms infrastructure
- Digital capital
- Technology services / competitiveness
- Technological clusters

# OPEN INNOVATION CULTURE

The ability for companies to collaborate with one another in order to foster digital innovation.

- Digital collaboration of large companies
- Digital collaboration of entrepreneurs
- Digital innovation of large companies
- Digital innovation of large entrepreneurs

#### **POLICY AND REGULATION**

How governments support digital businesses, help create a friendly environment for innovation and safeguard the security of digital operations.

- ICT regulation
- Platform regulation
- Cybersecurity regulation
- Strength of the ecosystem

Source: Accenture Research

The Accenture Platform Readiness Index groups more than 30 quantitative indicators into five factors to assess environment enablers. The index includes Accenture proprietary survey-based metrics, as well as secondary data from a variety of sources, such as the World Economic Forum, OECD, World Bank, World Trade Organization and the Global Entrepreneurship Monitor.

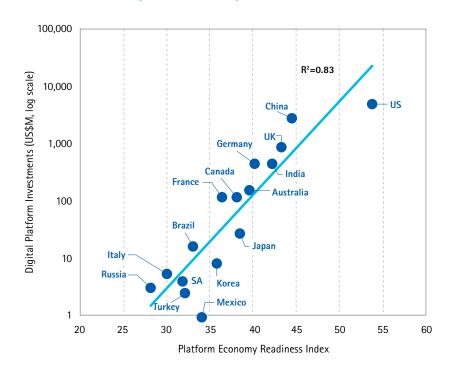
The data shows how each of the 16 countries studied is prepared to generate, incubate, grow and scale digital platform businesses. Also, by assessing the relationship between the Platform Readiness Index and measures of platform activity, we can anticipate the state of the platform landscape by 2020.

#### Predicting platform activity

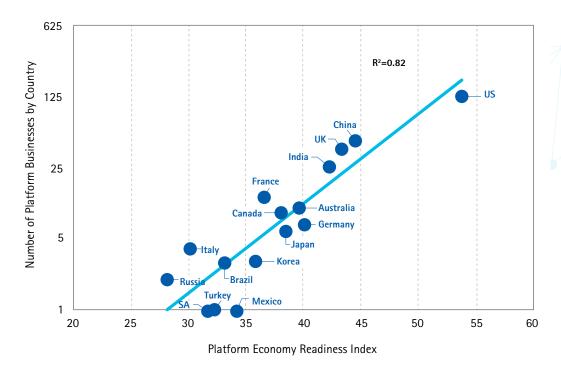
Our analysis shows that countries with a higher state of readiness on the Platform Readiness Index have higher levels of investment in platforms—as seen in Figure 7. The index is able to accurately pinpoint the significant disparity between countries on platform emergence. The strong relationship between readiness and investments is "exponential," meaning that improvements in readiness have increasing pay-offs in terms of platform activity.

Figure 7. Platform Readiness Index Versus Platform Activity

#### Index vs. Activity Measured by Investments



Index vs. Activity Measured by Number of Companies\*



<sup>\*</sup>The number of platform companies that register investment deals in a given year

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### **About Accenture Research**

Accenture Research is a global team of industry and digital analysts who create data-driven insights to identify disruptors, opportunities and risks for Accenture and its clients. Using innovative business research techniques, such as economic value modeling, analytics, crowdsourcing, expert networks, surveys, data visualization and research with academic and business partners, the team contributes to several hundred points of view that are published by Accenture each year.

# About G20 Young Entrepreneurs' Alliance

The G20 YEA is a collective of leading entrepreneurially minded organizations representing the G20 countries who seek to promote youth entrepreneurship as a powerful driver of economic renewal, job creation, innovation and social change. Each year, the G20 YEA brings together hundreds of the world's top young entrepreneurs to share their ideas with the B20 and G20 leaders to catalyze global change. The G20 YEA provides leadership to G20 political leaders in promoting youth entrepreneurship through policy recommendations and sharing best practices in the areas of access to funding, coordinating support initiatives, innovation, enhancing the entrepreneurship culture, regulation and taxation, and education and training.



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