THE RISE OF DIGITAL FINANCE IN CHINA
NEW DRIVERS, NEW GAME, NEW STRATEGY
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THE RISE OF DIGITAL FINANCE IN CHINA

NEW DRIVERS, NEW GAME, NEW STRATEGY

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DIGITAL FINANCE, a deep transformation of traditional finance fueled by Internet technology and a disruptive shift in mindset, is likely to serve as a powerful driver of reform and progress in China’s financial sector. The current boom in digital finance is a market-driven response to China’s long-standing repression of the financial services industry. This boom is powered by technology advances and rapidly changing customer behavior and is supported by three pillars: the proliferating digital economy, a supply-demand mismatch in China’s financial sector, and the liberalization of interest rates. And with a more inclusive regulatory environment, digital finance will continue to move forward quickly in China.

The emergence of digital finance will change the competitive landscape and key success factors of financial services. To what extent is still unknown. The industry will experience an influx of a variety of new entrants, not only conventional financial institutions but also Internet companies; digital-finance operators, such as peer-to-peer networks, crowdfunding sites, and financial vertical search engines; telecom operators; and infrastructure vendors. Future competition will hinge on four key success factors: infrastructure, platform, channel, and application. Among these factors, infrastructure is likely to play the greatest role in disruptive innovation.

Classic strategies employed by traditional financial-industry incumbents may lose their effectiveness as industry dynamics and key success factors change. To deal with new competition, incumbents in this industry need to employ an adaptive strategy that is more flexible, dynamic, and forward-looking. Rather than take a conventional approach to strategic planning and depend on the historical advantages of scale, pricing, and channel, companies need to capitalize on a variety of alternative advantages—experimentation, signal, organizational, system, and social.

Digital finance will also create social and economic value. Innovative, low-cost business models, improved microfinance and wealth management services, and reduced transaction costs in the financial sector will increase financial inclusion and serve as a powerful driving force for reform of China’s financial systems.

The rise of digital finance will bring new competition to the industry; what’s more important, it will encourage more cooperation and innovation. It will propel the financial sector in China into a new era by integrating finance with the Internet, which will promote reform and advancement in business philosophies, business models, and operating models.
ON JUNE 13, 2013, Alipay launched Yu’ebao, a money market fund with high liquidity and a simple online customer interface that targets the personal investment needs of the mass market in China. Within a year of its launch, Yu’ebao had more than 100 million account holders and accrued total assets under management of more than RMB 570 billion, making it the fourth-largest money market fund in the world. Internet companies (such as Tencent and Baidu), banks (for example, the Bank of China, Ping An Bank, and Minsheng Bank), and even telecom operators (such as China Telecom) soon followed suit, launching similar investment products.

During the 2014 Spring Festival, Tencent’s WeChat managed to turn hundreds of millions of WeChat social-networking accounts into financial accounts through a “Grab a Red Envelope” campaign, which was based on the traditional Chinese custom of giving red packets to family members and close friends during this festival. This promotion encouraged users to link their WeChat accounts to their bank accounts, creating the basis for further financial applications.

On February 13, 2014, JD.com, a leading e-commerce player, rolled out a “blank check” service, offering users shopping credit of up to RMB 15,000. Shoppers could apply for the credit, which carries an interest rate that is less than half the rate of similar products offered elsewhere, and obtain approval online in only a few minutes.

China Minsheng Bank’s Direct Bank went online in late February 2014, pioneering a new banking model that offers simple and standardized products and conducts all transactions online. The new approach drew nearly 500,000 users within three months of its launch.

From May 2013 through May 2014, Ping An launched its online used-car-financing platform, followed by its home-financing platform. Its loyalty points platform, Wanlitong, was also made available to more than 300 mainstream e-commerce vendors and 150,000 brick-and-mortar shops. It attracted 45 million end users.

In addition, other new digital-finance platforms, including peer to peer (P2P), crowd-funding, and vertical search, continue to emerge and scale up rapidly. Currently, there are more than 350 P2P platforms in China, with transaction values exceeding RMB 60 billion.

Over the past two years, digital finance has become the market’s new focal point as information technology has turned what once seemed impossible into reality. Many observers have called digital finance a disruption of traditional
finance, in that it both adds to the diversity of industry players (including conventional financial institutions and nonfinancial institutions) and to the diversity of business models (such as innovative business and operational models as well as the modes and frequency of competition). However, digital finance has not changed the fundamental goal and function of finance. It remains a derivative of economic activity, with a mission to serve the real economy and create value for customers. Its core function remains the allocation of resources, payment and settlement, risk management, and price discovery. As such, it would be more accurate to call digital finance an innovation rather than a disruption.

The Repression of the Financial Services Industry Offers the Potential for Innovation

After several decades of development, China’s financial system has seen many significant achievements. But like many other countries, China has continuing structural issues with its financial system, such as a mismatch between supply and demand. According to The Boston Consulting Group’s global wealth-management database, lower-wealth households (those with investable household-financial assets of less than $100,000) still make up 94 percent of all households in China, while such households make up only 49 percent of U.S. households, 42 percent of Hong Kong SAR households, and less than 15 percent of Japanese households. (See Exhibit 1.) The market in China is still composed mostly of mass-market customers. Although they represent the largest segment of the financial services market, they are the most underserved. These customers are usually unable to meet the RMB 50,000 investment threshold for wealth management services offered by banks. They also lack the professional know-how and experience for stock and fund trading, limiting them to basic cash savings accounts for investment needs. Furthermore, because these customers lack collateral and have incomplete credit records, they often find it hard to obtain bank loans.

According to BCG’s 2013 report on global consumer sentiment, more than 30 percent of Chinese consumers save 20 percent or more of their income because of a lack of investment options, compared with less than 10 percent of consumers in many other countries. (See Exhibit 2.) Immense customer demand...
The rise of digital finance in China has not yet been met by the traditional financial industry, leading to financial repression. This mismatch between demand and supply has become the fundamental driving force behind the growth of digital finance. The success of Yu’ebao and other digital-financial products is a testament to the potency of this driving force. If the 600 million Chinese Internet users are segmented by income and acceptance of digital channels, conventional financial institutions are focused only on a small percentage of users—those with monthly household incomes above RMB 10,000. Yu’ebao, on the other hand, serves nearly 200 million customers with a high acceptance of digital finance, and the majority have a monthly household income that is less than RMB 10,000. The remaining 360 million customers, whose household incomes and acceptance of digital channels are lower, represent the massive gap and opportunity to be served by digital finance. (See Exhibit 3.)

How can digital finance solve these problems, and what factors affect its development? We believe the key drivers of digital finance include technological advances, rapidly changing customer behavior, and a more inclusive regulatory environment. First, advances in technology can not only provide easier and more cost-effective means of identifying customer needs but also enable institutions to offer financial products and services with greater efficiency at lower cost. Second, rapid changes in customer behavior, such as consumers playing a more active role in managing their personal finances, as well as the proliferation of digital media and devices, also force financial institutions to shift their business models from those centered around the service provider toward those centered around customers. Finally, a more inclusive regulatory approach has also provided a relatively supportive environment for these changes.

Technology Advances Are Providing Tools for Innovation
Technology advances have greatly transformed both the demand and supply aspects of financial services and resulted in a better balance between the two. On the demand side, the In-
Internet and mobile devices have enabled customers to be connected anywhere and anytime. Their preferences, behaviors, and even moods can be discovered and tracked in real time, allowing institutions to better identify and meet their financial needs at a lower cost. On the supply side, big data analytics have enabled companies to take a more diversified approach to customer acquisition, cross-selling, and risk control, while the use of cloud computing both reduced the cost of providing financial services and raised efficiency.

**Mobile Internet.** The prevalence of mobile devices and the penetration of 3G and 4G networks enable people to stay connected anywhere and anytime. Furthermore, the various features and functions of mobile devices have created a strong base for commercial and financial applications. For example, a high-resolution camera can scan barcodes and quick response (QR) codes; a Global Positioning System (GPS) can easily connect customers to products and services in the same location; and Internet access enables people to search, make payments, and share information in real time. The mobile Internet enables commercial and financial services to be seamlessly integrated with the multiple facets of people’s daily lives, providing not only a basis not for widespread use of digital finance but also a foundation for innovations in Internet and mobile finance.

**Big Data.** With the rapid development of information technology, data on almost everything is being collected and stored, resulting in data volumes that are tens of thousands of times greater than before. An illustration of the vast amounts of information collected today is the aggregated data collected from online vendors: as China’s largest physical market for small commodities, Yiwu Wholesale has a total of 75,000 vendors. By comparison, there are now more than 10 million online merchants in China—and all of their transactions are faithfully recorded. To further illustrate: 90 percent of all of the world’s data volume was generated in the past two years; the amount of transaction data generated by Walmart each hour alone is 67 times that of the total number of books in the U.S. Library.
of Congress; it would take a person a thousand years to watch all of the videos uploaded to YouTube.

The sheer amount of data collected is impressive, but what is more important is that the data can deliver excellent commercial value. For example, Visa has reduced the amount of time to discover credit card fraud from one month to only 13 minutes, greatly minimizing potential losses. The Commonwealth Bank of Australia has also made use of big data to provide personalized cross-selling, raising cross-selling success rates from 9 percent to 60 percent. Telematics is helping reshape the auto insurance industry by enabling more precise and personalized pricing.

The financial sector has not yet effectively used its information stores to add value.

Although the financial sector already possesses a large amount of data, the industry has not yet effectively used its information stores to add value. In the future, players should enhance their data-mining efforts to gain a better understanding of customer behavior, optimize cross-selling, and enhance risk management, among many other benefits. For example, providers can recommend products to customers on the basis of their online browsing and purchasing records, which in turn will create opportunities to serve the customer on potential payment, credit, and other financial needs.

This practice is particularly effective in combination with location-based services to significantly boost mobile payments and other mobile-financial services. This form of targeted recommendation originated with Amazon.com, and leading financial institutions, such as Citibank, have already begun to apply the practice to credit card services. Another possible future application for the data is to reduce the inherent uncertainty involved in offering some financial products, thereby simplifying these financial products and making it possible to cut out the middleman, making the products available at a lower cost to customers who could not afford them in the past. P2P companies have gone above and beyond the boundaries of a normal credit investigation in analyzing the personal information of their customers; they collect a wide range of information from social-networking websites, telecom records, and other sources in order to reduce the uncertainty of making a loan.

From a long-term perspective, a credit system based on the analysis of big data is not only useful for the financial sector but also for resolving trust issues among complete strangers. The strategic importance of data in this digital age has parallels to what oil was to the industrialization age, and the ability to analyze and apply data will become the most valuable competitive advantage.

Cloud Computing. Cloud computing is a computing model that delivers dynamic and scalable virtual resources through the Internet as a service. In theory, all computer applications and services can be accessed remotely through the Internet and cloud computing. Cloud computing affects digital finance in two ways.

For customers, cloud computing enables connectivity for mobile devices and convergence across multiple screens. Through remote data storage and processing, cloud technology lowers hardware requirements on the terminal side, making possible mobile Internet-based services on smaller devices, such as smartphones and tablets. At the same time, the cloud platform provides cross-device processing and storage, which allows the same content and application to flow freely through different terminals without a hitch, bringing about multiscreen convergence.

Take Baidu Cloud, for instance. This cloud service aimed at individual users provides free data storage, personal website hosting, address book, photo album, articles archive, notebook, short messages, Find My Phone, and many other applications. In October 2012, only two months after Baidu Cloud was launched, more than 10 million users signed up. By September 2013, one year after the service went online, Baidu Cloud had more than 100 million users.
For financial institutions, cloud computing can help significantly lower operational and innovation costs. Cloud computing runs on a virtual mainframe machine and is significantly more scalable and flexible than conventional IT systems, so it is “pay as you go” without requiring a large initial investment. Moreover, it is not susceptible to sudden surges of transaction volume on the Internet and is thus able to significantly lower IT investment and operational costs for small and medium-size financial institutions and businesses. Even more important, cloud computing provides the basis on which financial institutions can innovate and experiment at low cost.

Consider what happened in June 2013, when transaction volume on Yu’ebao exploded shortly after it was launched. The traditional IT infrastructure used during the first phase was pushed to its limits and support for Yu’ebao was shifted over to AliCloud. It was the first time cloud computing had been employed to support China’s largest direct-fund investment and settlement system, and after nearly a year of practical application, the processing capability and stability has been proved. As a result of switching over to AliCloud, Yu’ebao has shortened its daily account settlement time from eight hours to 30 minutes.

Further, on November 11, 2013, Yu’ebao participated in the nationwide “11/11” shopping festival. It settled 16.8 million redemptions and 12.9 million purchase applications, successfully distributed proceeds to 6.39 million users, and cleared all settlements in only 46 minutes. More important, AliCloud’s stunning processing power, scalability, and flexibility cost less than 10 percent of the company’s first-phase conventional IT system.

Rapidly Changing Customer Behavior Is an Impetus for Innovation

The widespread usage of the Internet and mobile Internet, coupled with the rise of a new, digital generation, has led to profound changes in consumers’ behavior and their levels of financial awareness.

“I decide.” A survey of Chinese banking consumers conducted by BCG in 2014 found that even though more than 50 percent of consumers still relied on the official websites of financial institutions as an important source of information, 10 to 15 percent of consumers preferred social-networking channels, blogs, and mobile apps as their sources of information. And the number of these consumers is growing rapidly. In the past, consumers were passive recipients of delivered information. They usually were notified of any financial services they were eligible to receive and were willing to believe official sources and experts. Today, the positions of authority and exclusivity held by traditional financial institutions are being challenged in both the information channel and products. Increasingly, consumers have adopted the habit of actively seeking out information and would much rather trust their own judgment or recommendations made by their friends. They want to have a decisive role in choosing financial services and investment strategies.

Consumers want to have a decisive role in choosing financial services.

Motif, a U.S. investment website, has capitalized on this change in customer behavior, giving ordinary investors the chance to become fund managers. Motif Investing was established by former Microsoft executives in 2012. The company’s product, Motif, is based on the concept of investment portfolios: stocks are grouped around themes such as 3-D printing, medical technology, and online games. Customers can choose to purchase and hold an existing Motif or to build their own Motif and recommend it to their friends, enabling them to play a role similar to that of a fund manager. Unlike traditional fund companies, the website does not charge management fees; instead, it charges a standard rate of less than $10 for each Motif transaction, attracting customers with low commissions. When a Motif put together by a customer performs well and draws a certain number of investors, the website will share with the Motif creator a cut of its commissions. The company has al-
ready attracted investments of more than $50 million from J.P. Morgan, Goldman Sachs, and other strategic investors.

“Whenever I want.” In the past, financial institutions unilaterally decided the hours when financial services were available. Most transactions had to be completed between 9:00 a.m. and 5:00 p.m.—the working hours of banks and other financial institutions. But digital channels have broken the monopoly that brick-and-mortar branches held over financial services, making them available around the clock instead of eight hours a day. It is now up to customers to decide when they want to make a transaction. Yu’ebao’s Internet money-market funds report that more than 50 percent of transactions take place outside the operating hours of traditional financial institutions. In fact, close to 20 percent of all transactions happen between midnight and 5:00 a.m.—a surprising time frame. This is a prime example of autonomy in financial choices for customers.

“Wherever I want.” According to BCG’s projections, Internet and mobile channels will contribute to nearly 40 percent of all bank sales and to 66 percent of customer service and transactions by 2020, far exceeding the levels reached in 2012 (20 percent and 50 percent, respectively). The importance of Internet and mobile channels should not be underestimated. BCG projects that in the U.S. market from 2010 through 2020, the volume of transactions taking place in branches and automated teller machines (ATMs) will remain relatively stable, while new transactions will come almost exclusively through the Internet and mobile channels. (See Exhibit 4.)

Those changes in customer behavior will inevitably transform the entire financial industry. Financial services will become more inclusive and more closely linked with consumers’ lifestyles, and the areas covered will become more expansive.

Linking financial services with lifestyles refers to the process of integrating financial services and products with every aspect of people’s daily lives, providing seamless support for customers as they go about their business. For example, customers can call a cab with a smartphone app and pay for the ride and share Red Envelope discount coupons with friends through a mobile

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**Exhibit 4 | Rather Than Take Customers from Brick-and-Mortar Banks, Digital Channels Will Add New Ones**

<table>
<thead>
<tr>
<th>Transaction volume (billions per year)</th>
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<tbody>
<tr>
<td>Branch</td>
</tr>
<tr>
<td>1969</td>
</tr>
<tr>
<td>1979</td>
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<tr>
<td>1989</td>
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<tr>
<td>1999</td>
</tr>
<tr>
<td>2009</td>
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<tr>
<td>2020</td>
</tr>
</tbody>
</table>

**U.S. market data**

Forecast

Source: BCG analysis.
Note: ATM = automated teller machine.
platform. They can also use their mobile devices to check movie show times and book group tickets or to purchase big-ticket durable goods and arrange for installment payments using the Internet. As Brett King wrote in his book *Bank 3.0*, “Banking is no longer somewhere you go but something you do.”

Financial services are also expanding their coverage and becoming more inclusive. Traditional commercial banks in China focus on private-banking customers with investable assets of RMB 6 million to RMB 8 million, wealth management clients with investable assets of more than RMB 500,000, and clients who meet the minimum investment threshold of RMB 50,000. The system of branches and relationship managers at traditional banks is built to serve these customer segments. The emergence of digital finance has allowed coverage for financial services to reach a far broader customer pool consisting of the average households that have long been neglected by the industry. For example, at Direct Bank, launched in February 2014 by China Minsheng Bank, the assets under management per customer account are, on average, less than RMB 30,000, while at Yu’ebao, a true advocate of grassroots financial products, the assets under management per account average only about RMB 5,000.

**Regulatory Inclusion Fosters a Supportive Environment for Innovation**

As previously discussed, regulatory inclusiveness has provided a relatively supportive environment for the development of digital finance. In March 2014, Premier Li Keqiang stated in his government work report that the authorities should “promote the healthy development of digital finance and improve the mechanism for coordinating financial regulatory oversight.” Digital finance is already on the radar for policymakers, and the government officially recognizes innovations in digital finance.

Senior regulatory officials have taken a similar supportive stance, balanced by a call for regulatory oversight. For example, Zhou Xiaochuan, governor of the People’s Bank of China (PBOC), stressed that “use of technology” is encouraged in the financial sector. He also stated definitively that the authorities will not clamp down on financial products such as Yu’ebao. Further policies, however, will be implemented to cover the sector more effectively. Pan Gongsheng, deputy governor of PBOC, also pointed out that digital finance has had a positive impact in several areas, including providing an alternative financing channel for small and medium-size enterprises (SMEs), providing more investment options for ordinary citizens, raising standards for financial services, reducing the cost of financial transactions, and promoting the liberalization of interest rates. PBOC’s *Financial Stability Report*, published in May 2014, clearly outlined five key guidelines for regulating digital finance. Evidently, policymakers and regulatory bodies have adopted an inclusive and supportive attitude toward innovations in digital finance.
Furthermore, an initial regulatory framework for digital finance has already taken form. We can expect a three-tier digital-finance regulatory structure that consists of official supervision, industry self-regulation, and market autonomy in the next few years, referencing foreign experiences in regulating digital finance and e-commerce.

- **Official supervision** refers mainly to a supervisory framework with the PBOC, the China Banking Regulatory Commission (CBRC), the China Securities Regulatory Commission (CSRC), and the China Insurance Regulatory Commission (CIRC) at its core. According to the initial division of responsibilities, the PBOC is primarily responsible for overseeing payment-related services (such as third-party payment). The CBRC is primarily responsible for P2P platforms, while also working in collaboration to an extent with local governments. Responsibilities for supervising crowdfunding, especially equity crowdfunding, lies with the CSRC.

- **Industry self-regulation** refers to associations and organizations established independently by industry players. Their objectives include setting industry goals for development, forming industry standards, and promoting fair competition. An example of such a body is the Peer-to-Peer Finance Association (P2PFA) in the UK. Similar organizations, such as the China Internet Finance Association and the Internet Financial Professional Committee, have already been established in China.

- **Market autonomy** refers to an open rating system based primarily on customer reviews and provider reputations. The system, similar to existing rating systems for e-commerce, can affect customer decisions and serve to rein in wayward vendor behavior. Platforms establish the basic mechanisms and guidelines for carrying out transactions, feedback, and dispute settlement, while customers and merchants provide comments and ratings on products, services, and customer experience. This framework enables information transparency during the transaction process and enhances fairness. At present, a platform for such autonomy in digital finance has yet to be established.

Despite an inclusive and supportive attitude adopted by regulatory officials, they have not yet delineated supervisory roles and responsibilities in detail. Detailed regulatory initiatives on P2P and equity crowdfunding are expected to be released later in 2014.
Traditional financial services are hierarchical, top down, and designed from the provider’s perspective. Digital finance is flexible, egalitarian, and centered on the customer. Can the two mindsets work together?

A Collision of Two Mindsets
What will digital finance look like in 2020? If we take a vantage point in the future and look back to the present, it becomes much easier to guide the industry in devising strategies that can take better advantage of opportunities. But what makes it interesting is that different players in the market have very different mindsets. (See Exhibit 5.)

The traditional view of financial services is depicted as a value chain. Financial institutions are on the left end of the chain, customers on the right. A financial product or service has to go through infrastructure, product, platform, communication, channel, medium, and application before finally reaching the customer. Control over these core components of the value chain confers a competitive advantage. The structure of the value chain also shows the provider-centric mindset of traditional financial

**EXHIBIT 5 | The Traditional and Internet Mindsets Are on a Collision Course**

<table>
<thead>
<tr>
<th>Traditional corporate mindset</th>
<th>Value chain</th>
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<tbody>
<tr>
<td>Infrastructure</td>
<td></td>
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<tr>
<td>Product</td>
<td></td>
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<tr>
<td>Platform</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
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<td>Channel</td>
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<tr>
<td>Medium</td>
<td></td>
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<tr>
<td>Application</td>
<td></td>
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</tbody>
</table>

Source: BCG analysis.
Institutions; products are the responsibility of middle and back offices, and products are designed according to the company’s own internal rules and regulations. Take loans, for example: the key considerations for financial institutions in designing this product are collateral, loan terms, and pricing. Product design is completed before the financial institution considers which channels to go through and which customers to target. In this mindset, the product-development process is relatively distant from the customer, and there are significant barriers that hinder addressing customer needs at the product-development stage.

In contrast, emerging digital-finance entrants usually adopt the Internet e-commerce mindset. The main components are user, cloud, and application. User-user, user-cloud, and user-application interactions form a dynamic multidimensional ecosystem. In this system, the user is at the center. Cloud refers to cloud computing and data services, credit information platforms, and other infrastructure built on the cloud, while application represents the large number of application settings and products that are closely associated with these applications. In this system, customer needs drive the creation of financial services and products. When a digital-finance provider identifies a need in an application setting, the provider develops a new product to address the particular need. Ultimately, the service provider integrates the new financial product seamlessly into the application and the process begins again.

The two mindsets have two major differences: one is provider-centric while the other is customer-centric; one model is linear while the other is multidimensional and web-like. The differences in the mindsets reflect the characteristics of the traditional financial industry and the Internet industry as well as the different paths that these industries have taken during past development. Traditional financial institutions may find the “user, cloud, and application” mindset too abstract and simplistic, making it difficult for these organizations to tackle the concept. Internet firms, on the other hand, may find the linear value-chain mindset obsolete and too cumbersome. In the long run, however, mutual respect and understanding between the two different mindsets will be essential to competition and integration in digital finance.

Four Key Success Factors in Digital Finance

No matter which mindset prevails, the end goal is the same: excel at the key success factors for competition and cooperation in digital finance. Despite their differences, the two models actually focus on many of the same keys to success. We believe there are four common key success factors in digital finance: infrastructure, platform, channel, and application. (See Exhibit 6.) Infrastructure is where the most disruptive innovation is likely to take place, while application and a customer-centric approach are crucial in integrating digital finance into our daily lives. Platform is the extension and innovation

EXHIBIT 6 | Success in Digital Finance Rests on Four Pillars

1. Infrastructure
   - Payment system
   - Credit system
   - Underlying asset match-making platform

2. Platform
   - Social networking
   - Navigation
   - Service integration
   - Personalization

3. Channel
   - Multichannel integration

4. Application
   - Application and offering

Source: BCG analysis.
of existing Internet platform models. Channel represents the reassessment of a financial institution’s core assets (its branches) in the Internet age, as well as an important area for online and offline integration.

**Infrastructure: Infinite Possibilities for Disruptive Innovation**

Here, infrastructure refers mainly to payment systems, credit systems, and the underlying asset-matching platform.

**Payment System.** This is the most fundamental point of market entry for digital finance, and the competition has only begun. Payment is the most rudimentary of functions people demand from finance. It is also the financial product with the largest array of applications. The birth and development of financial institutions originates with payment. Amsterdamse Bank (now known as ABN AMRO) was founded in the Netherlands in the seventeenth century to facilitate payment settlements for the country’s booming merchant fleet. The establishment of the Shanxi draft banks in the nineteenth century was also linked closely to the payment settlement needs of the salt merchants in the region.

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The payment business is key for building traffic and collecting data.

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Today, the leaders of digital finance are also using payment as a point of market entry and control. Yu’ebao owes its rapid growth in large part to the prevalence of AliPay, which itself owes its development to the growing demands of e-commerce on Taobao. Similarly, the Tenpay payment system provided Tencent with a point of entry to the digital-finance market. The company has also attempted to increase the visibility and usefulness of its payment tool through a broad array of applications, such as Chinese New Year Hong Bao—red envelopes typically filled with cash and cab-hailing applications and vouchers. Today, Tenpay has even linked to Shenzhen’s municipal roadside parking-fee system. At the same time, all of China’s major banks and three telecom operators have launched electronic and mobile-phone wallet services. While the payment business does not generate much in the way of direct earnings, it is key for building traffic and collecting data, which form the basis for developing other financial services.

Mobile finance has made payments much more dynamic. First, it stimulated innovation in payment media. An example of this is a payment sticker, called PayTag, launched in 2012 by Barclays Bank in the UK. After users link the tag with their bank accounts, they can stick the tag to their phones or on themselves to make payments of £20 or less.

In 2014, Barclays once again forayed into the mobile-payment medium by launching a smart wristband called bPay. One very important feature of bPay is that it employs near-field communication (NFC) protocols, allowing it to communicate for payment purposes with smartphones and other mobile devices in close proximity. PayPal is also working with Samsung to develop a payment application for Samsung smart watches that allows customers to make payments through their watch interfaces. In China, there is also widespread innovation in payment media, with developments such as chip-based NFC, QR codes, sound waves, photonic payment options, and more. China UnionPay—the national bank-card association—telecom operators, online third-party payment firms, and banks are also joining the payment-medium innovation fray while competing over control of the standards to be used in the future.

The second effect of mobile finance is the rise of virtual currencies such as Bitcoin and network payment protocols such as Ripple. These innovations raise questions for central banks and traditional payment systems around the world. How will the form and role of currency change? How will the Internet payment systems evolve? Time will tell.

A third consequence of mobile finance is that payment services, which are at present limited mostly to transactions between buyers and sellers, may in the future come to encompass a broader set of interactions and relationships—for example, bilateral or even multilateral payments based on social networking or interper-
sonal relationships. Competition in this arena has only begun, and we will likely see developments that gradually turn our definitions and expectations for payment upside down.

Finally, after experiencing a period of relatively light regulatory oversight over the past decade, the rapidly growing third-party payment industry is now facing greater supervision from regulatory officials and the financial industry alike. Uncertainty about whether future regulations will tighten oversight of the sector is also an important factor that will affect the development of the payment industry in China.

Credit System: Centralized or Diversified?
After a certain volume of payment data has been collected, it can be organized and processed in a specific way to form the basis for a credit system. In the future, as mobile connectivity and social networking continue to develop, the type, volume, and timeliness of data will also improve dramatically. Networked rating systems that evaluate individual credit will also become more diversified, multidimensional, and timely.

Some platforms have expanded their user bases by exploiting social networks.

The release of The Social Credit System Building Plan (2014-2020) by the State Council in June 2014 raises hopes that China can gradually refine and perfect a legal framework and a standardized system for collecting credit information during the next few years. But will the system be government-driven and centralized, or market-driven and diversified? Again, time will tell.

A Platform for Matching Underlying Assets: A Boom in Direct Finance. A platform for matching underlying assets refers to a matching and trading platform for equity, debt, property rights, forests rights, land rights, carbon emission credits, and other underlying assets. Its development can be attributed to China’s structural reforms in social financing. Currently, the ratio of indirect finance to direct finance in China is 6:4, a relatively simple financing structure with banks still serving as the dominant lender. In the U.S., however, the ratio is 3:7, and it reached as high as 2:8 prior to the global financial crisis. China’s evolving financing structure will inevitably reverse this ratio, and the elimination of financial intermediaries is an ongoing trend that is further accelerated by emerging models enabled by the Internet. Ping An’s Lfex, for example, is a platform that matches bonds, account receivables, credit card receivables and other underlying assets with various institutions. In the first six months since it went online, total transaction value on the platform has already exceeded RMB 40 billion.

Platform: The Extension of Internet Business Models in the Digital-Finance Sector
A platform is defined as a business model that links two or more groups together, provides them with behavioral guidelines, a mechanism, and a venue (often virtual) for interaction, and then profits from the process. As Lakala founder Sun Taoran wrote in the preface for the book Platform Strategy, a successful platform needs to meet several requirements. First, companies choosing a platform strategy should be able to build up a large user base. Second, it should be able to provide very “sticky” service to its users. Third, the company needs to follow a business model that builds win-win relationships where the other party’s satisfaction is placed first. Successful platform operators are putting these principles into action right now.

In terms of building a user base, some platform operators have expanded their user bases rapidly by exploiting the viral nature of social networks. Kaixin001 had only 300 seed users at the time of its founding in 2008, but this core group of users brought in friends and family through activities such as uploading photos, writing diary entries, and playing interactive games, creating a ripple effect which saw the number of registered users at Kaixin001 multiply 100,000 times to 30 million users in only 15 months.

Some platform operators aggregate a variety of goods and services under their online portal while providing internal search in order to draw traffic to their platforms. Rong360 is the
leading domestic online financial portal in China. The site works with 2,000 banks, micro lenders, pawnshops, and others to allow users to search for lenders, compare prices, make recommendations, or inquire about loans, wealth management, credit cards, and other financial products. Since its founding in late 2011, Rong360 has already built a customer base of 10 million.

In order to make their service “sticky” for users, some platform operators turn to differentiated service, personalized service, or consolidated service bundles. The One Account from Ping An is an example of differentiated service. It lets customers access Ping An’s banking, insurance, investment, and other financial services with a single account and password; users are also given a consolidated account summary, which allows them to manage and keep track of all of their financial assets from a single access point.

Personalization is no longer the sole preserve of high-end customers.

Personalized services mostly come in the form of personalized product recommendations and pricing. Traditional finance incumbents believe personalized services are only for high-end customers because of their higher cost, while middle- and low-income customers must settle for standard products and services. But with the widespread application of big data, personalization is no longer the sole preserve of high-end customers. For instance, Amazon.com’s recommendation system can assess a customer’s preferences and needs from data collected on the customers’ demographic group, search history, browsing history, favorites, and past purchases, and then recommend products accordingly. The system now contributes to about 30 percent of Amazon.com’s total sales, and the success rate of its recommendation system has reached roughly 60 percent. Similar personalized services have already been applied in finance. For example, Citibank recommends merchants to its credit card users that provide discounts on purchases based on the users’ credit-card transaction history, thereby boosting total transaction volume for its credit cards.

The pairing of Alipay and Yu’ebao is a classic example of consolidation of multiple services. Yu’ebao, as an investment product, is embedded in Alipay’s existing account and payment process, ensuring that customers can enjoy a wider variety of products and services while retaining the same easy and convenient user experience. In the future, consumer credit and other products can be incorporated into the same account system.

The platform model is widely adopted by Internet firms, so employing a similar model is a natural extension of their existing strategy as they continue to develop in the financial services sector. But for traditional financial institutions, a platform model may seem relatively unfamiliar and abstract. But changing this mindset and adopting a platform strategy could lead to breakthroughs for traditional finance.

**Channel: Multichannel Integration Is the Key**

Multichannel integration is at the core of channel topics. Multichannel integration gives customers the ability to freely choose when to receive specific financial products and services and through which channels. This capability requires seamless integration of products and services, processes, and technology across the different channels of an institution. Integration of channels is particularly important for traditional financial institutions, which have more brick-and-mortar channel assets. In order to achieve multichannel integration, an institution needs to go through transformation in two steps: first, it must shift its channel positioning from provider-centric to customer-centric; and second, it must transform the functions and formats of these channels.

**Transforming into a Customer-Centric Channel.** Traditional financial institutions already have a long history of attempts to build out their digital channels. Since 1997, when China Merchants Bank first launched its online banking services, almost every bank, broker, and insurance company has established some form of online channel. But
traditional online-banking or mobile channels typically take only existing processes online. Rather than cater to customers’ needs, the processes are still designed from a process-management perspective inside the financial institution. The true challenge these financial institutions face in multichannel integration is not technology but a change in mindset.

Transforming Functions and Formats of Branches. Although branches are asset-heavy and high-cost for financial institutions, consumers’ psychological dependence on these physical channels is unlikely to disappear in the foreseeable future. Branches will continue to exist because they serve a purpose, especially when it comes to more complex products and the need for face-to-face communication. But branches need to undergo a transformation. For example, more low-value transactions (such as cash deposits, withdrawals, and transfer and remittance) should be diverted to ATMs and electronic channels to free up branch staff time for sales and advisory work. The overall planning and formats of branches need to be adjusted to accommodate a gradual shift from the current prosaic model of large branches to a more flexible arrangement that is a combination of many different formats. For example, with a hub-and-spoke model, banks can get wider coverage at a lower cost. Another option is to establish specialized branches providing professional services to utilize the surrounding markets (such as a specialized SME service center or a specialized wealth-management center) in order to better provide more targeted services.

Internet players rely mostly on electronic channels and rarely have significant physical presence. But online channels alone may not be sufficient to serve all customer segments and applications, so multichannel integration should also be in Internet institutions’ future playbooks.

**Application: Identify the Main Application in the Customer’s Life**

The concept of embedding financial services in daily life has been discussed earlier. With the application of this concept, finance would no longer be compartmentalized but put to daily use across different applications, resulting in a seamless integration that would make it virtually invisible. The blueprint for the expansion of digital finance is based on two dimensions: expanding the target customer segment and increasing the engagement time with customers’ daily lives.

There are several ways to expand the target customer segment, such as expanding coverage across regions, age groups, or levels of wealth.

To win, it is now necessary to tailor products and applications to customers’ needs.

Increasing the time spent interacting with customers would require deploying as many applications as possible to increase traffic. As we explained in *China’s Digital Generations 3.0: The Online Empire* (BCG report, April 2012), entertainment, communication, information, and e-commerce take up the most online time of China’s netizens. (See Exhibit 7.) Major players in digital finance are also competing for user hours in these applications. (See Exhibit 8.)

In early 2013, the top 20 apps used by Chinese consumers came from 13 independent companies. Fast-forward to today, and 17 of the top 20 apps are from Tencent, Alibaba, and Baidu (which either own the apps outright or have invested in them). The mobile-phone apps owned by the three companies took up nearly 40 percent of users’ monthly online hours, or 60 percent if the various apps in which the three companies invested are also included in the tally.

At the same time, traditional financial institutions have gradually realized that it will become increasingly difficult to rely solely on product differentiation. To win customers, it is now necessary to tailor both products and applications to customers’ needs. Many traditional financial institutions have thus begun focusing more on applications. For example, China Construction Bank and the Industrial Commercial Bank of China have already established their own e-commerce platforms. The Ping An Group has also entered home
EXHIBIT 7 | Chinese Netizens Use Digital Media for Four Purposes

Weekly online hours spent by netizens in China

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Weekly Hours</th>
<th>Difference from 2008 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>Movies/videos</td>
<td>3.3</td>
<td>50</td>
</tr>
<tr>
<td>Games</td>
<td>2.1</td>
<td>39</td>
</tr>
<tr>
<td>Music</td>
<td>1.6</td>
<td>35</td>
</tr>
<tr>
<td>E-reading</td>
<td>1.3</td>
<td>60</td>
</tr>
<tr>
<td>Software/game download</td>
<td>1.0</td>
<td>31</td>
</tr>
<tr>
<td>Communication</td>
<td>7.6</td>
<td>20</td>
</tr>
<tr>
<td>Instant messaging</td>
<td>3.0</td>
<td>40</td>
</tr>
<tr>
<td>E-mail</td>
<td>1.1</td>
<td>86</td>
</tr>
<tr>
<td>Social networking</td>
<td>0.9</td>
<td>80</td>
</tr>
<tr>
<td>Forums</td>
<td>0.9</td>
<td>128</td>
</tr>
<tr>
<td>Blogging</td>
<td>0.9</td>
<td>376</td>
</tr>
<tr>
<td>Weibo</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>News</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Search</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Navigation</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Mapping</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>5.1</td>
<td></td>
</tr>
<tr>
<td>Online shopping</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>Online stock trading</td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td>Online banking</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>Online payment</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Group purchasing</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Travel reservations</td>
<td>0.3</td>
<td></td>
</tr>
</tbody>
</table>

Source: China’s Digital Generations 3.0: The Online Empire, BCG report, April 2012.

EXHIBIT 8 | Digital Giants Are Using Apps to Compete for Customers’ Time

<table>
<thead>
<tr>
<th>Alibaba</th>
<th>Entertainment</th>
<th>Communication</th>
<th>Information</th>
<th>E-commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Acquired 16.5 percent of Youku Tudou</td>
<td>Acquired 18 percent of Sina Weibo</td>
<td>Acquired amap.com</td>
<td>Taobao and Tmall</td>
</tr>
<tr>
<td></td>
<td>Acquired Qyer</td>
<td>Acquired immomo.com</td>
<td>Acquired UC Explorer</td>
<td>Alipay</td>
</tr>
<tr>
<td></td>
<td>Acquired Xiaomi.com</td>
<td>Ali Laiwang</td>
<td>Acquired riot games</td>
<td>Acquired 15 percent of 360buy</td>
</tr>
<tr>
<td></td>
<td>Acquired Evergrande</td>
<td>Tencent Weibo</td>
<td>Tencent 19 percent of dianping.com</td>
<td>Set up a joint venture with Groupon, Gaopeng.com</td>
</tr>
<tr>
<td>Tencent</td>
<td>Tencent Game</td>
<td>QQ</td>
<td>Tencent Weibo</td>
<td>Acquired nuomi.com (group buying)</td>
</tr>
<tr>
<td></td>
<td>Tencent Video</td>
<td>WeChat</td>
<td>Acquired Tencent 20 percent of dianping.com</td>
<td>Source: BCG analysis.</td>
</tr>
<tr>
<td></td>
<td>Acquired Riot Games</td>
<td>Acquired 19.9 percent of 8.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acquired CJ Games</td>
<td>Acquired 20 percent of dianping.com</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baidu</td>
<td>IQIYI</td>
<td>Not applicable</td>
<td>Baidu</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baidu Player</td>
<td></td>
<td>Acquired 91.com</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acquired PPS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acquired qianqian.com</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Resize
and used-car financing and set up the Wanli- tong loyalty-points platform.

The competition in application is far from over. In the future, it will be essential to identify the main application in customers’ lives and use it as a point of entry for core apps. This main application can be online or offline, and it may not take up the most user hours, but it would be integral to the customer’s most basic needs.

One such example is the security card used for entry into residential compounds, which is not only necessary whenever the user goes home but also embodies the customer’s need for safety and security. So could security cards become a core application? Can additional functions be added to this base? As we can see, future competition in application would require an understanding of the psychological and social needs of customers. This understanding is possible only with a truly customer-centric approach.

It will be essential to identify the main application in customers’ lives.

In summary, there are four key success factors in digital finance: infrastructure, platform, channel, and application. Traditional financial institutions, major Internet players and emerging digital-finance operators, telecommunication operators, infrastructure providers, and other organizations are all positioning themselves around the four key success factors. (See Exhibit 9.)

The Implications for Different Market Players

It is hard to predict what the rapidly evolving digital-finance industry might look like in 2020, but asking the right questions and grasping the key trends might still be of help to various market players.

In the future, traditional financial institutions may still enjoy an advantage in product expertise and risk management, and they may also upgrade their innovation capability in channel and application. Internet companies, on the other hand, have an advantage in platform, and their focus on application has also yielded results in recent years. They may step up innovation in infrastructure and other areas further down the line. If telecom carriers and infrastructure providers were to make a strong push into digital finance, they would enjoy none of their traditional advantages, because they are marching into a wide-open and less familiar industry. The challenge in terms of mindset, system, and mechanism would be also be immense. Finally, there remains a level of regulatory uncertainty, and the operating landscape remains unclear.

Emerging players in digital finance are still in a stage of rapid development and evolution, and the ultimate winning business model for the China market has yet to be established.

Midsize and Large Banks Need a Customer-Centric Mindset; Small Banks Should Avoid Being Marginalized

Midsize and large banks face very different challenges from those of smaller banks.

For midsize and large commercial banks, a change in mindset and mechanism is crucial. They have a solid foundation—built upon capital, talent, and risk-control capabilities—that give them unique advantages in servicing large enterprises and high-end clients with complex needs. But these banks cannot neglect the market in the long customer tail that digital finance has exposed.

Banks in this category have begun building a presence in digital finance. China Construction Bank’s buy.ccb.com and ICBC’s mall.icbc.com, for example, are poised to use e-commerce as an application entry point. The Bank of China, for its part, has set up an open platform for application developers. China Minsheng Bank has launched Direct Bank, and China Merchants Bank has set up a P2P platform. China Citic Bank has turned to point of sale (POS) loans and QR code payments.

Amid their frenzy to launch new digital banking services, midsize and large banks still face a serious challenge to change mindsets and mechanisms. In the course of the research for
<table>
<thead>
<tr>
<th>Five key categories of players</th>
<th>Conventional financial institutions</th>
<th>Internet companies</th>
<th>Emerging players</th>
<th>Telecom</th>
<th>Infrastructure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>Alibaba</td>
<td>Peer-to-peer</td>
<td>Operator</td>
<td>UnionPay</td>
</tr>
<tr>
<td></td>
<td>Securities</td>
<td>Tencent</td>
<td>Crowdfunding</td>
<td>Mobile vendor</td>
<td>Credit system</td>
</tr>
<tr>
<td></td>
<td>Insurance</td>
<td>Baidu</td>
<td>Search</td>
<td>Content platform</td>
<td>Third-party payment-settlement system</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and application platform</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Traditional infrastructure, such as the central bank clearing and settlement system and the stock exchange</td>
<td>E-commerce credit system and Alipay payment and settlement system</td>
<td>Investment and finance match-making platform</td>
<td>Mainly Internet and mobile channel</td>
<td>Third-party payment-settlement system</td>
</tr>
<tr>
<td></td>
<td>Currently still heavily reliant on branches, but moving towards multichannel integration</td>
<td>Mainly Internet and mobile channel</td>
<td>Investment and finance match-making platform</td>
<td>Heavily reliant on branches</td>
<td>Central bank credit system and potential private credit companies</td>
</tr>
<tr>
<td></td>
<td>Shopping, such as buy.ccb.com</td>
<td>Shopping, taxi, entertainment, and football</td>
<td>Mainly Internet and mobile channel</td>
<td>Social networking, gaming, taxi, food, and entertainment</td>
<td>Finance, employment, and marriage-seeking</td>
</tr>
<tr>
<td></td>
<td>Pingan Life match-making platform</td>
<td>Pingan Wanlitong point platform and peer-to-peer platform</td>
<td>Information platform and WM platform</td>
<td>Information search platform</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pinganhaoche, Pinganfang, Wanlitong</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: BCG analysis.
Note: WM = Windows mobile.
In this report, we interviewed more than 40 executives from traditional financial institutions and noticed a significant change in their general attitude towards digital finance from only a year earlier. Then, most were still dismissive of digital finance, regarding it as a means of regulatory arbitrage or a market bubble. Since then, they have seen for themselves the rapid development and innovation taking place in digital finance and are clamoring to learn more. At the same time, they admit feeling that the learning curve is too steep or that they find themselves “immobilized.” A sampling of comments from our interviews follows:

- “Digital finance has raised customer expectations for financial services. It now remains to be seen which bank can change its mindset first and break out of its institutional limitations to meet these expectations.”
- “There is a lot of pressure when competing with Internet companies. They have a venture capital mindset—an appetite for trial and error and a tolerance for failure. But commercial banks have financial responsibilities and are very cautious with innovation; they have to consider things like return and risk.”
- “The online banking department in a commercial bank is traditionally considered as a channel department. From this position, it is extremely difficult to mobilize all the different business and product departments and the branches to deliver on business-model innovation.”

To overcome such challenges and establish a truly customer-centric digital strategy, midsize and large banks require changes in eight aspects of their operations: digital insights, digital channels, digital marketing, digital innovation, risk management, process management, technology platform, and organizational management and culture. (See Exhibit 10.)

---

**EXHIBIT 10 | Banks Need to Build Eight Capabilities for Digital Finance**

<table>
<thead>
<tr>
<th>Digital insights</th>
<th>Digital channels</th>
<th>Digital marketing</th>
<th>Digital innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer knowledge</td>
<td>Customer touch point</td>
<td>Digital marketing</td>
<td>Digital innovation</td>
</tr>
<tr>
<td>Customer data</td>
<td>Physical channel</td>
<td>Objectives</td>
<td>Innovation process</td>
</tr>
<tr>
<td>Smart segmentation</td>
<td>Text, e-mail</td>
<td>Campaign management</td>
<td>Customer co-creation</td>
</tr>
<tr>
<td>Digital listening</td>
<td>Call center</td>
<td>Prioritization</td>
<td>Innovation partnership</td>
</tr>
<tr>
<td>Market research</td>
<td>Social networking</td>
<td>Effectiveness</td>
<td></td>
</tr>
<tr>
<td>Digital trends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital competition</td>
<td>Devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer research</td>
<td>Personal computer</td>
<td>Digital services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mobile phone</td>
<td>Personalization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tablet</td>
<td>Features/services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Multichannel integration</td>
<td>Digital sales</td>
<td>Offline digital tools</td>
</tr>
</tbody>
</table>

**Source:** BCG analysis.

**Note:** CIM = customer interaction management; CRM = customer relationship management.
• **Digital Insight.** The customer data held by most commercial banks is within departmental and system silos. As a result, most banks cannot gain a comprehensive understanding of customers despite dedicating significant investment and resources to surveys, data collection, and customer segmentation. Commercial banks must develop the means and capability to collect comprehensive customer data and monitor long-term market trends and competitors. Simultaneously, to extract commercial value from their data, banks must remove the internal barriers that prevent that data from being standardized and shared.

Banks should consider reducing the cost of innovation by using virtual modeling.

• **Digital Channels.** Commercial banks’ channels—branches, ATMs, call centers, online banking, and mobile banking—also operate in silos, each with their own separate processes and risk management requirements. Because of these internal divisions, a customer can have very different experiences in different channels within a single bank. Banks will need to standardize and consolidate processes, customer experience, and services both online and offline. There needs to be an overarching management policy for all channels to bring about multichannel integration.

• **Digital Marketing.** Today, digital marketing by commercial banks has been a pleasant surprise for their customers. From electronic billboards, websites, and text messaging to WeChat, banks have already brought their marketing messages to big and small screens alike. But digital marketing at this stage remains restricted to the digitization of traditional sales channels and methods—the mindset and model haven’t changed. Commercial banks should consider employing the mindset and model of online social networks and e-commerce to better leverage big data and advanced data analysis to further realize the potential of personalized marketing.

• **Digital Innovation.** Banks are the pillars of the financial industry, and security and stability rightly remain their priorities when dealing with innovation. But moving forward, banks should consider reducing the cost of innovation by using virtual modeling and trials, while involving customers as early as possible to avoid costly mistakes with the wrong products. In addition, they should actively seek to form cross-sector partnerships with Internet companies to learn from their inherent mindset and culture of innovation.

• **Risk Management.** Digital technology has brought new methods and approaches to risk management in banks. Collateral and credit reports from the central bank will no longer be the only data to support credit and loan approvals. Public information, household and professional data, property records, consumption records, social-networking data, and other sources can be leveraged to manage risk. This multidimensional and comprehensive credit data will provide a more accurate risk profile for banks, while at the same time simplifying risk management processes and improving efficiency.

• **Process Management.** Over the past 30 years, process management in banks has been standardized, centralized, automated, and improved. In the rush to automate, however, some banks have neglected the importance of streamlining their business processes. As a result, automation has created some disconnect and has to be managed by the very people that it was supposed to free up for other tasks. Moving forward, banks should achieve streamlining by remaking their processes from scratch and by mapping them from end to end. Banks should leverage centralization and digital automation to increase the efficiency of process management.

• **Technology Platform.** Traditional IT infrastructure, with its high initial investment, lack of scalability and flexibility, and significant cost escalation when usage
The rise of digital finance in China surges, is ill-suited to digital finance. By contrast, the Internet—and technology platforms for digital finance—are asset-light. To improve the capability of their IT systems, banks should consider employing cloud computing or other new platforms. Banks can use low-cost cloud platforms to expand service capacity and improve the scalability of IT systems. And banks can use a unified cloud platform to support banking products and services, as well as integrate multiple channels and customer touch points.

Digital-finance business models can produce a winner-take-all dynamic.

- Organizational Management and Culture. Traditional organizational structures, management regulations, and corporate cultures hinder the development of the pioneering Internet spirit in commercial banks. Although many banks have already taken the first cautious steps into the digital age, by, for example, transforming their online-banking departments into Internet finance departments, the change is, in many cases, only skin-deep. Commercial banks need to define an enterprise-wide digital strategy, then identify the departments to lead the effort, specify roles and responsibilities, and allocate sufficient resources. At the same time, they need to learn from the organizational structures and incentive schemes of Internet companies.

**Small Banks Face Challenges of Being Marginalized**

Digital-finance business models share similarities with the Internet economy and can produce a similar winner-take-all dynamic, making the future of smaller banks uncertain. To avoid being marginalized, they should consider the following strategies:

- Reduce fixed-capital investment as much as possible and adopt an asset-light approach to compete. Reduce large-scale brick-and-mortar branches, and rely instead as much as possible on digital channels and small, convenient physical touch points to increase customer coverage. Small banks should also adopt a low-cost external infrastructure strategy, such as outsourced cloud and data-mining services, to minimize their operating and innovation costs.

- Act big. For example, form alliances among small banks or cooperate with large platforms to overcome disadvantages in scale and channels. China Industrial Bank, for example, has developed an online wealth-management platform to help small banks distribute their investment products.

- Become truly local. Capitalize on local preferences, innovative products, and exemplary service to win the loyalty of local customers and achieve differentiation.

**Insurers: Leverage Digital Tools to Create Innovative Products and Business Models**

Digital finance may result in changes to the customer purchasing process, channels, and behavior, but the customer’s core need for insurance to hedge against risks remains the same. Therefore, innovation within the industry should revolve around a core of insurance products. In addition, opportunities also lie in multichannel integration and cross-sector cooperation. These opportunities include the following:

- Digitally Based Innovation. Make use of the Internet of Things (IoT) and other digitization tools to carry out innovation in risk-control methods and products. Traditional insurance offerings are predominately big-ticket products that are multifaceted in design and come with complex terms and conditions. Risk management and pricing are usually difficult and costly. These conditions create an artificial barrier to entry for customers looking for insurance products; it has also made insurance products seem removed or inaccessible in daily life. Insurers will want to make ample use of the IoT, big data analytics, and other technology to reduce the difficulty of risk management and pricing. They should focus on develop-
ing lower-priced, accessible, and personalized insurance products that can be integrated into customers’ daily lives.

• **Multichannel Integration.** Traditional insurance distribution mainly relies on agent and bank channels, which are notorious for their high cost. With the emergence of alternative channels, customer purchasing preferences are likely to diversify. Insurers, then, should actively keep up with changes in customer behavior by providing a low-cost, personalized, and multichannel purchase and service experience.

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Insurers can partner with Internet companies to better understand clients’ needs.

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• **Cross-Sector Collaboration.** To achieve cross-sector innovation, insurers can partner with Internet companies to gain a better understanding of client needs and experiences. Huatai Insurance has paired up with Alibaba to provide “delivery insurance” for Taobao for a premium as low as RMB 1. Taikang Life is working with Alibaba to offer low-cost health insurance for Taobao merchants. Both are examples of cross-sector innovation.

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**Securities Firms: Explore Online Wealth-Management Platform Models**

At present, securities brokers use the Internet primarily for channel and product improvement. Guotai Junan Securities has improved its channels using Jun Hong Financial Mall, an integrated financial platform. Founders Securities has a presence on Tmall. Examples of product improvement include Guojin Securities’ Yongjinbao, offered in conjunction with Tencent, which attracts customers through low commissions, a free high-end consultation, value-added services, and a cash-deposit wealth-management service.

As a next step, Chinese brokers can learn from their U.S. peers, such as TD Ameritrade, Charles Schwab, and other Internet brokers, which have transitioned into integrated online wealth-management platforms. To realize a similar transformation, Chinese securities brokers should consider the following moves:

• **Enhanced Product Offerings.** Provide a complete portfolio of products, such as equities, bonds, investment funds (including exchange-traded funds), futures, foreign exchange, options, cash-management tools, and equity-pledged financing. Through enhanced product offerings, customers can enjoy one-stop wealth-management services.

• **Multichannel Integration.** Transform current branches into a series of smaller convenience stops to expand geographic coverage. Convert larger branches into specialized wealth-management centers, while strengthening Internet and mobile presence to improve the online registration and trading experience.

• **Use of Open Platforms.** Unify online and offline channels through the employment of professional financial-planning consultants to provide investment advice to customers. In the U.S., TD Ameritrade has drawn 4,500 registered investment consultants (RIA) through its open platform; Charles Schwab and Fidelity have similar arrangements.

**Fund Managers: Become a Superior Product Provider**

The best-known Chinese example of an investment fund company’s digital transformation is Yu’ebao, produced by Tianhong Asset Management working together with Alipay. The partnership is a breakthrough not only in channel development but also in product design, customer experience, and other aspects.

Looking forward, fund companies’ unique expertise is still in investment and product design. Their focus should be on leveraging the mindset and technology of Internet players for product innovation. At the same time, fund companies can also collaborate with Internet players, e-commerce platforms, banks, and other parties to continue developing channels and expanding scale.
Internet Players: Infrastructure Is the Next Likely Focus of Competition

Internet companies already have in place the four key success factors for digital finance. Alongside their traditional advantage in platform, they are competitive in application, leaving infrastructure as the focal point for the next wave of development.

Platforms are at the core of Baidu’s, Alibaba’s, and Tencent’s businesses, and these companies have leveraged platforms with great success in the past decade. These companies will have to continue to leverage their platforms as they develop their digital-finance businesses. Rather than produce financial products internally, their platforms might act as a bridge between financial product suppliers and end customers. A series of acquisitions over the past three to four years has increasingly defined the competitive landscape in terms of customer applications.

Infrastructure is becoming the next focal point for innovation and differentiation among the major players. By infrastructure building, we mean extending and deepening the platform strategy to improve the existing platform’s effectiveness while enriching the ecosystem. Alibaba, for example, launched a series of products and services (including AliCloud and ODPS data services) to enrich its platform and ecosystem, all of which are innovations in infrastructure.

Although they compete in the same industry, Internet players such as Baidu, Alibaba, and Tencent possess very different DNA and history. Their future development foci will also diverge. For example, the question at the core of Baidu’s digital-finance transition is how to turn its heavy volume of search traffic into digital-finance needs with commercial value. Alibaba faces the key question of how to link payment and innovation in infrastructure to an efficient and profitable business model. Tencent’s challenge lies in how to enhance its digital-finance business while remaining anchored to its core of social and gaming applications.

Telecom Operators: Both Opportunities and Challenges Exist

Telecom subscription accounts can be repurposed as financial accounts with functions such as payment, investment, and lending. All three major telecom operators have recently launched mobile-payment products, such as China Mobile’s Wallet, China Unicom’s Wo Payment, and China Telecom’s Bestpay. In addition, China Telecom launched its investment product Tianyibao, partnering with China Minsheng Bank, while China Unicom Guangdong launched Wo Baifu in collaboration with Baidu and Fullgoal Fund.

Mobile subscriptions are extremely sticky and frequently used accounts. Once a user’s identity has been verified, payment and communication history become effective credit information, creating infinite opportunities for telecom operators in credit-data analysis and credit services.

Venturing out of the industry where they traditionally enjoyed a competitive advantage and into the rapidly changing and competitive financial sector requires a mindset change from telecom operators. In addition, they will face a sizable challenge to coordinate internal mechanisms and profit distribution.

Emerging Players Will Depend on Regulatory Changes; Vertical Extension and Specialization Are Key

P2P platforms represent the elimination of traditional intermediaries in the financial industry. Because China’s credit environment is still maturing, the most commonly observed model remains a P2P network with links to offline micro-lending companies and guarantors. The crucial unknown hovering over future development is how the regulatory environment will change and how the credit system will mature. Once this uncertainty dissipates, P2P platforms will be able to explore potential business models and effectively complement banks and other more traditional financing channels.

Crowdfunding comes in two main forms. The first form is based on tangible rewards and presale campaigns. It can be seen as an exten-
sion of the e-commerce customer-to-business (C2B) model into the capital markets. This form of crowdfunding has become the dominant form of crowdfunding both within and outside of China owing to the very few legal restrictions on such activity. The second form is equity crowdfunding, which can be described as Internet-enabled angel investing. In China, equity crowdfunding is subject to the Company Law and other related legal restrictions and is thus developing more slowly.

Going vertical and specialization are two important trends in the industry. They are more common in creative and technology industries, which in their early stages of development require only limited competence in technology, capital, and human resources. To realize true vertical extension and specialization, the crowdfunding ecosystem will also need to involve sales, legal, finance, and consulting companies in addition to fundraisers, platforms, and investors. Crowdfunding platforms will also need to develop their strengths and cultivate their postinvestment management capability to evolve from being an investment platform into a one-stop shop for comprehensive industry support services.

As digital finance continues to develop, players in different areas of the market are finding many opportunities to collaborate as well as compete. In infrastructure, for example, Internet players and telecom operators can work together to turn collected data into a new credit system, thereby providing an innovative tool for P2P platforms, crowdfunding, and banks. Internet players’ cloud-computing resources can help small financial institutions lower their operating and innovation costs. In product development, traditional financial institutions can work with Internet players (such as Tianhong Asset Management and Alipay’s Yu’ebao, as well as Guojin Securities and Tencent’s Yongjinbao) to introduce innovative financial products that meet customer needs. In platform and channel, Internet players provide financial institutions with low-cost channels that broaden customer coverage and boost product sales. Baidu Wealth platform is one such example. It brings together an array of loan, wealth management, insurance, and credit card products from banks, fund companies, trust companies, insurers, and micro-lending companies. Clearly, true digital-finance success is possible only through deep integration.
DIGITAL FINANCE CHANGES THE strategic game in financial services. In today’s environment, adaptation is all.

The Five Advantages of an Adaptive Strategy

Digital finance is the most dynamic and innovative sector within China’s financial industry, with very different characteristics from the conventional sectors.

In digital finance:

- Market players face more volatility and rapid changes. For example, in a single year, Tianhong Asset Management has climbed from fiftieth place to first place in China in scale, thanks to its Yu’ebao product.

- Data is more important than ever before. It has become the basis for market players developing small business lending, P2P loans, consumer credit, and other new business models.

- Industry borders are blurring. Companies from other industries, including e-commerce platforms such as Alibaba and JD.com, Internet players such as Tencent and Baidu, traditional retailers such as Suning, and logistics companies such as SF Express, are testing the waters in finance.

The rapid changes to the industry and the entry of unfamiliar new competitors have subjected traditional financial institutions to intense pressure. Their traditional competitive advantages in scale, price, channel, and strategic planning no longer seem adequate. The pressure is especially intense in the personal finance space, which is undergoing rapid change. Financial institutions must adopt a more flexible, dynamic, and forward-looking approach to build an adaptive strategy in this evolving market. (See Exhibit 11.)

Financial institutions can realize their adaptive strategy by capitalizing on five advantages.

- The experimentation advantage is at the very core of the success of Internet players.

- The signal advantage and organization advantage support this core.

- And the system advantage and social advantage reinforce the first three elements.

Let us now define and review each advantage.

Experimentation Advantage. Traditional innovation requires high investment and long time horizons, making it ill-suited to a dynamic market setting. Companies must learn how to experiment and innovate rapidly and at low cost. Techniques such as virtual reality reduce
cost, have faster turnaround, and allow a wider range of experiments. At the same time, such techniques make it possible to conduct focus groups sooner and then transmit successful concepts throughout the organization.

Personal care brand Kimberly-Clark uses 3-D simulation to help retailers determine the optimal product and retail strategy. The technology enables them to test different product packaging and placements very quickly and at low cost. Amazon.com carries out a large number of experiments on each and every tweak to its website. Small tweaks that seem insignificant, such as the placement of buttons or the rankings of top searches, can boost revenue by as much as 3 to 5 percent. Orange, a European telecom operator, makes use of its social network of 30,000 hard-core fans to test new products and services and thus avoid new-product misfires.

Traditional financial institutions have always claimed that their attempts to innovate are shackled by risk controls and regulations. By cultivating an experimentation advantage, however, traditional players can test new ideas in a relatively safe and contained environment and thus remove many of the constraints on their innovation activities.

**Signal Advantage.** Most companies today are awash in increasingly voluminous, dynamic, and granular information. The same information is generally available publicly to all competitors. Companies with signal advantage are those equipped with the ability to distill and focus on the right information and extract a relevant and valuable signal, then quickly modulate the organization’s behavior accordingly.

Haier Group, for example, built up signal advantage by establishing three open platforms for innovation. The first platform, IDEA Crowd Innovation, was established to draw out outstanding ideas from designers, creative workers, and customers. The ideas are then developed into real Haier products at the company’s five R&D centers in Australia, China, the U.S., Europe, and Japan. The second platform, HOPE Open Innovation, allows developers to post innovation needs, and seek and share solutions, with the goal of promoting interaction among developers. The third platform, Haier community, targets end customers, allowing them to share their experiences with Haier products, offer feedback, post requests for new products, and more. All that activity helps Haier gain a deeper understanding of its customers.
Although traditional financial institutions are sitting on a massive amount of data, fragmented internal data systems and issues with authorization often stymie efforts to manage them effectively and extract commercially valuable insights.

Organization Advantage. To survive in the rapidly changing market environment, companies often need to apply different strategies to different business units. For example, traditional bank strategies are suited to stable business conditions and are a poor fit for dynamic businesses, such as the rapidly evolving personal-finance business. Managing the different business models across the company demands high flexibility and strong learning capabilities.

Adaptive organizations motivate through vision, goals, and autonomy.

Companies known for organization advantage often employ modular plug-and-play structures. They split large groups into smaller units similar to SWAT teams managed with a relatively flat or even web-like structure. Such adaptive organizations follow a decentralized decision-making model that quickly transmits information and knowledge throughout the organization.

In terms of culture and values, adaptive organizations emphasize shared values throughout the organization to promote unity, igniting individual passion through defining clear, attainable goals. Adaptive organizations encourage openness, curiosity, confidence, and interest.

In terms of processes and tools, adaptive organizations are not focused on process management and do not set a large number of standard rules. Instead, they motivate through vision, goals, and an emphasis on autonomy. In financial planning and budgeting, adaptive organizations focus on market movements and continuous adjustments rather than specific KPIs.

Many Chinese companies have already started to acquire this advantage. Alibaba incorporated an open, sharing culture that stresses common core values, fair competition, exuberant growth, and a bottom-up approach. The company uses nicknames, an internal network, and a large number of internal training programs and activities to root its culture in its employees. As another example, MI Phone took the flattening of hierarchy and elimination of management to the extreme. The company has no KPIs, no management, and no hierarchy. Zhang Ruimin, CEO of Haier, also stresses that “a company without borders, and management without leaders” is the way forward in the Internet era.

No doubt it will be hard to change the organization structure, systems, and cultures of traditional organizations in a short period of time. However, companies can test an adaptive organization in selected emerging business operations. For example, Ping An Financial Technology Consulting, established in 2011, is a subsidiary of Ping An Group that is dedicated to incubating new businesses such as Wanlitong. From the very start, this division set out to cultivate a culture similar to Internet players. The managing director and CTO were former executives of Internet players. Rather than using financial metrics such as revenue and profit, it measures performance by the number of active customers. The company has already successfully incubated Wanlitong, the Pinganfang home financing platform, Ping An Payment, and other new businesses for the group.

Systems and Social Advantage

Reinforce Core Advantages

As mentioned earlier, the final two digital-strategy advantages make the other advantages more effective.

Systems Advantage. Nokia president and CEO Stephen Elop once said in a speech, “Our competitors rely not on advanced devices but on a strong ecosystem.” Competition in the Internet era no longer revolves around a single product or a single company, but rather competition between ecosystems.

Apple offers a handy example. Behind every Apple device is a massive ecosystem, includ-
ing best-in-class component manufacturers, multiple content providers, a large pool of app developers, as well as various telecom operators acting as distributors. Through partnerships, profit-sharing mechanisms, and the necessary infrastructure, Apple has brought together a large number of players in its ecosystem.

Traditional financial institutions have focused their energies on building closed internal ecosystems focused on effectively managing risks. This strategy, though appropriate in the past, can limit the breadth and depth of the company’s future development in digital finance, which is much more open and integrated.

Ping An’s Wanlitong loyalty-points platform may provide the answer to the traditional closed system. Wanlitong points were only accepted within Ping An Group prior to 2013, when Ping An Group rolled out a universal points concept that allows members to redeem Wanlitong loyalty points on 300 leading e-commerce platforms and 150,000 offline shops. The move greatly expanded the ecosystem of Ping An’s loyalty points program.

Digital-finance competition is competition among ecosystems. The company that manages to build a broad and diversified partner network on the basis of the four key success factors will possess the most dynamic ecosystem. The major factor for success of an ecosystem is its mechanisms. To be competitive, ecosystems require explicit goals, trust, low barriers to entry, a high degree of motivation, flexibility, feedback channels, and a seamless user experience.

Social Advantage. As information spreads more rapidly and much more transparently, the public is increasingly focused on social equity and justice and is increasingly aware of the environment. As a result, corporate social responsibility has become a key differentiator. Innovations that create social value and solve social issues can often act as a building block for a great business model and company.

Digital finance, such as online investment for the mass market, and micro-lending for SMEs, is an innovation in response to financial repression in China. Thus digital finance has a natural social advantage. Traditional financial institutions can build their social image and reinforce their social advantage by using digital finance to make their services more accessible.

An adaptive strategy is fundamental to digital-finance competition, and the five advantages just described are important areas of focus. Traditional financial institutions may find the learning curve steep or feel immobilized by the effort, but each of the five advantages is fundamental to future success.
Traditional financial institutions have been making forays into digitization for some time now. Since 1997, when China Merchants Bank first launched its online-banking service, to the present day, Chinese banks have made significant progress in switching over to online channels. According to a report by the China Financial Certification Authority, the China Internet Banking Survey 2012, personal Internet banking transactions have replaced 56 percent of over-the-counter transactions. The replacement rate for corporate Internet banking was even higher at 66 percent, and some banks saw replacement rates of more than 85 percent. The penetration of Internet and mobile banking has resulted in greater convenience for consumers and cost reduction for financial institutions, among other advantages.

Traditional financial institutions appear to have limited their exploration of the Internet to channel innovation and have yet to extend their exploration into business models, product innovation, and operations. The emergence of digital finance has heralded the integration of financial business models, products, operations, and innovation activities with the Internet and will advance digitization across the financial industry. Digital finance will also increase the accessibility of finance and serve as an impetus for financial-system reform in China.

Fostering Financial Inclusion
Fostering financial inclusion will result in more comprehensive and effective proliferation of financial products and services across all segments of society. Financial inclusion’s core mission is to promote equal rights and opportunities to financial services for the underprivileged (such as rural residents, low-income urban households, and small and micro businesses). But under the traditional financial system, the high cost and limited reach of physical branches and relationship managers makes it impossible to provide suitable financial products to all segments of society.

Digital finance can significantly reduce the cost of providing financial services.

Digital finance, with its new channels, products, and risk management tools, can significantly reduce the cost of providing financial services and products, making finance accessible to a much broader range of the population and fostering financial inclusion.

Consider investment and wealth management: Traditional investment products target affluent people and come with a strict set of rules. Bank investment products, for example,
typically require a minimum investment of RMB 50,000, while trust investments require a minimum outlay of RMB 1 million. In addition, customers are subject to a face-to-face risk evaluation in a branch before their first investment, and redemption is usually barred for one or two years. Since 2013, the emergence of Internet money-market funds, such as Yu’ebao, has completely changed these rules. They impose no minimum required investment, allow online purchasing and service around the clock, and offer redemption on demand. With such changes, digital finance has greatly expanded the pool of targeted customers for investment products, broadened the coverage of age groups and locations, and extended the hours when transactions are possible.

In terms of age coverage, the majority of traditional investment-fund customers are age 40 or older. Customers between the ages of 40 and 50 account for 33 percent of fund customers, and those older than 50 account for 35 percent. Only 8 percent of customers are younger than 30.

The age profile of digital-finance customers is completely different. According to Yu’ebao’s statistics, by the end of June 2014, 58 percent of Yu’ebao customers were younger than 29 years old; customers older than 40 accounted for only 15 percent. (See Exhibit 12.) Before the emergence of Yu’ebao and similar digital finance products, only about 40 million Chinese held fund trading accounts. But Yu’ebao has already accumulated more than 100 million customers within a year of its introduction. The takeaway: the majority of Yu’ebao customers are incremental investors, most of them young people with fewer investable assets than their elders.

In terms of geographic focus, conventional fund companies usually concentrate on tier 1 cities and the more developed east coast provinces, resulting in a dearth of mutual fund options in tier 3 and tier 4 cities and rural regions. Emerging digital money-market funds are upending the traditional geographic distribution pattern for these products. Data from Yu’ebao shows that by the end of 2013, 40 percent of its account holders were located in tier 3 and tier 4 cities, providing customers in these cities more investment choices.

Regarding transaction hours, in the past, financial institutions unilaterally decided the hours in which financial services were available. Most transactions had to be completed between 9:00 a.m. and 5:00 p.m.—the work-
Digital finance has enhanced the financial autonomy of customers.

With broader coverage in age, locations, and transaction hours, overall investment population coverage (calculated by dividing the population of investment fund holders by the total population of China) has greatly improved. Before Yu'ebao, overall investment population coverage was only 3 percent in 2012, much lower than the average of 20 to 30 percent in mature markets. But by the end of 2013, with the emergence of Internet funds, investment population coverage in China had risen to 6 percent and will likely exceed 12 percent in 2014. If this growth momentum continues, investment population coverage in China is expected to reach 25 to 30 percent by 2020—on par with that of mature markets. In addition, Internet funds have already generated investment returns of nearly RMB 15 billion for their customers in the past year, and they are expected to create a total of RMB 200 to RMB 300 billion returns through 2020, which is comparable to the total national social security fund yield over a three- to five-year period.

Digital finance has also greatly expanded small and micro enterprise (SME) financing. SMEs lack the collateral and credit record required to secure conventional bank loans. Their financing needs are also much more frequent and urgent than those of corporate customers. According to the China Small and Micro Business Survey Report by the China Household Finance and Research Center at Southwestern University of Finance and Economics, one-third of the 56 million small and micro businesses in China have taken on debt, but only 12 percent obtained loans from banks. Further analysis of major commercial banks’ annual reports shows that the average lending account balance of the claimed SME clients is in the range of RMB 3 million to RMB 5 million, and some are as high as RMB 10 million. Those numbers suggest that the focus of commercial banks is still larger corporations, not SMEs.

P2P, e-commerce platform lending, and other emerging digital-based lending products are targeting precisely those underserved SME customers. For example Alibaba provides small loans to the merchants on its e-commerce platforms, based on the merchants’ transaction records, orders, and other collateral. To date, the average account balance of an Alibaba Small Loan is only RMB 30,000 to RMB 40,000, with individual loan size often less than RMB 10,000. According to the statistics from a well-known P2P platform, the average account balance of its SME customers is also less than RMB 50,000.

As China’s credit system matures, P2P, e-commerce platform lending, and other digital-based lending products will experience rapid growth. Traditional financial institutions may well emulate the new data analysis and risk management approaches employed by these new players. With these new developments, we believe that SME financing coverage (calculated by dividing the number of SMEs that have received financing support by the total number of SMEs in China) will grow from 11 percent in 2013 to 30 to 40 percent in 2020. (See Exhibit 13.)

In addition to the increased financing coverage, data from Alibaba Small Loans indicates that the company’s lending products also boost the growth of the small merchants on its platform. Merchants that have received loans from Alibaba grow much faster than those that have not. (See Exhibit 14.) Another
**EXHIBIT 13 | The Forecast for Financial Coverage of Small and Micro Businesses Is More Growth**

Number of small and micro businesses covered by the financial channel

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2015</th>
<th>2020</th>
</tr>
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<tbody>
<tr>
<td>Number of small and micro businesses covered (millions)</td>
<td>~8</td>
<td>12–15</td>
<td>35–45</td>
</tr>
<tr>
<td>Overall coverage (1) (%)</td>
<td>11</td>
<td>15–20</td>
<td>30–40</td>
</tr>
</tbody>
</table>

Source: BCG estimate.

1The small and micro business finance-coverage rate is the number of small and micro businesses with access to finance resources divided by the total number of small and micro businesses.

**EXHIBIT 14 | Small Loans Support Faster Growth for Taobao Merchants**

Transaction (RMB)

- Four typical diamond merchants without small loans
- Four typical diamond merchants receiving small loans

<table>
<thead>
<tr>
<th>Month</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transaction (RMB)</td>
<td>80,000</td>
<td>60,000</td>
<td>40,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Three months before receiving a loan</td>
<td>+80%</td>
<td>+50%</td>
<td>+30%</td>
<td>+20%</td>
</tr>
<tr>
<td>Three months after receiving a loan</td>
<td>+250%</td>
<td>+100%</td>
<td>+60%</td>
<td>+40%</td>
</tr>
</tbody>
</table>

Source: Alibaba.
statistic from Alibaba shows that during a 20-month observation period, 3 percent of merchants that had not obtained loans closed their shops, compared with 2 percent of those that did receive loans. During the same period, only 7 percent of the merchants that did not receive loans saw their annual sales grow to RMB 1 million, compared with 22 percent of the merchants that borrowed from Alibaba.

As previously mentioned, one crucial reason that digital finance can significantly improve financial inclusion is its low-cost model. Shown below is an example to quantify the amount of cost digital finance can help reduce, in this case for third-party payment.

According to statistics from the Central Bank of China, by the end of 2013, the total volume of third-party payment transactions reached 23.8 billion; 6.8 billion of those were offline POS transactions; 15.3 billion were Internet-based, mainly through personal computers; 1.7 billion were done through mobile terminals. The total operating cost of the third-party payment industry in 2013, including the cost of POS machines, was about RMB 25 billion. If we were to make a bold assumption that all 23.8 billion transactions are now processed through offline POS machines, the operating cost would rise to RMB 75 billion, meaning the potential cost savings achieved through Internet and mobile payment is about RMB 50 billion in 2013. Extrapolating to 2020, projected accumulated cost savings from 2011 to 2020 could exceed RMB 1 trillion. (See Exhibit 15.)

Driving Financial System Reform

In addition to fostering financial inclusion, digital finance also plays an important role in driving financial system reform in China.

For customers, digital finance has boosted financial autonomy and choices. Autonomy is realized when customers who were passive receivers in the past become active directors who now can make their own choices of when, where, and how to access the financial services they want. The choice aspect is manifested in the higher level of financial awareness among long-tail customers. In the past, traditional financial institutions were biased towards mid- to high-end clients. How much customers were heard closely correlated with their wealth. With the emergence of digital finance, ordinary customers’ demands are now heard and respected as well.

EXHIBIT 15 | Digital Payments Create RMB 1 Trillion in Cost Benefits for the Third-Party Payment Industry

Operating costs of third-party payment industry

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<td>0</td>
<td>10</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>400</td>
<td>500</td>
</tr>
</tbody>
</table>

**Scenario 1:** No Internet or mobile payment

**Scenario 2:** With Internet and mobile payment

Source: BCG estimate.

1Mobile payments refer to those based on software and requiring no high hardware-renovation cost.

2Includes offline point-of-sale machine-acquisition cost.
For industry players, especially traditional financial institutions, digital finance has heralded the coming of a true customer-centric mindset. In the process of producing this report, we interviewed more than 40 executives from traditional financial institutions. When asked about the greatest impact of digital finance on them, the majority gave the same answer: “It has shown financial institutions the importance of placing the customer first.” Now, the customers’ needs can truly filter through to all aspects of a financial institution’s business: product development, service process design, channel transformation, and operational enhancement.

At the same time, Internet companies, entrepreneurs, telecom carriers, and other new entrants are also driving traditional financial institutions to adopt a more open attitude and embrace the new competition. This change in attitude and mindset will further the drive to enhance open market competition in the industry, while placing more focus on adapting to market trends and improving efficiency.

For China’s financial system, 2013 will be remembered not only for the birth of digital finance but also as the year that financial reforms deepened: comprehensive financial reform was kicked off in the Shanghai Free Trade Zone; privately founded and financed commercial banks started trial operations; and the elimination of financial intermediaries and the liberalization of interest rates continued. Digital finance is undoubtedly an important driver of these reforms, and it will continue to act as a vital force for innovation and liberalization of China’s financial system.
NOTE TO THE READER

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About BCG Digital Ventures
Founded in January 2014, BCG Digital Ventures is a first-of-its-kind digital-innovation product development and commercialization firm that works with the world’s leading companies to develop, launch, and grow digital products, platforms, and businesses. The firm, headquartered in Manhattan Beach, California, has offices in Berlin, Boston, London, Seattle, San Francisco, and Sydney. Its world-class, multidisciplinary team of innovators and investors possesses a vast range of experience and insight to create disruptive market offerings for BCG’s clients. To learn more about BCG Digital Ventures, please visit www.bcgdv.com.

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