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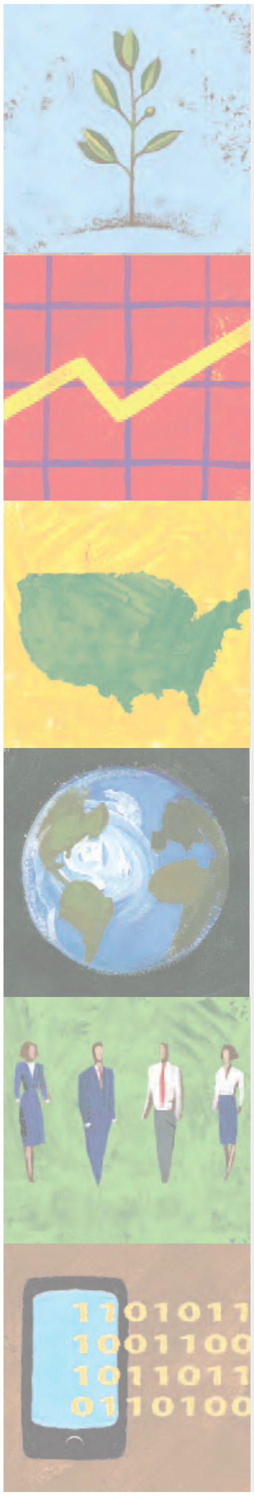

McKinsey on **Payments**

Payments in Asia: At the vanguard of digital innovation

As elsewhere in the world, a wave of fintech innovation has hit the payments industry in Asia. Digitization of business processes and the emergence of new platforms for payments and finance bring both challenges and opportunities to payments businesses operating within Asia or serving clients who trade with firms in Asia. While developments in Asia reflect a worldwide evolution, five major distinguishing trends set the region apart: the rise of local disruptors in a highly diversified market, the extension of financial inclusion through mobile-based solutions, new innovations reaching critical mass with increasing speed, the role of digitization in creating new payments and lending models, and the emergence of industry-wide platforms.

Chris Ip

Pine Kyaw

Akash Lal

First, disruptors are taking advantage of Asia's *highly diversified markets* to identify opportunities and attack existing bank-dominated models. The "killer apps" are remittances, transportation and m-commerce, each of which is helping to drive rapid adoption of digital payments instruments. The attackers include telecommunications firms (e.g., NTT DoCoMo in Japan, Telkomsel in Indonesia and Globe in the Philippines), transport companies (e.g., JR Rail in Japan and Octopus Cards in Hong Kong) and, most significantly, Internet companies, particularly in China (e.g., Tencent with TenPay and Alibaba with AliPay).

These successful innovations have three key elements in common: First, each is based on a well-defined "use case" with clear benefits; for instance, providing migrant workers (whether cross-border or in-country) with inexpensive and convenient ways to send money to their families, enabling passengers to move faster through public transit turnstiles and giving consumers a safe and secure way to make online purchases. Second, each model has a well-established user base, which enables the operator to achieve critical mass quickly. Third, the frequency of transactions makes the new payments procedure familiar and habitual. This stickiness allows successful operators to launch new payments tools and reach a tipping point of usage and adoption with a speed that was unheard of a decade ago.

In addition, these disruptors are also expanding beyond payments, building extensive financial services ecosystems. For example, Alibaba's financial subsidiary takes deposits, extends loans and, through Yu'E Bao, offers investments in money-market funds, which traditionally have been difficult for retail investors in China to access. Tencent, the social networking group that operates QQ and WeChat, with about 800 million subscribers across the two platforms, has its own digital bank—WeBank—and also provides micro loans.

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Digital attackers have also spurred traditional banks to innovate. A number of leading banks around the region are building payments-linked ecosystems for their customers. For instance, SCB's Dash, DBS PayLah and HDFC Bank's PayZapp allow mobile payments across all categories (shopping, bill payments and peer-to-peer payments), as well as access to discounts and referrals, leveraging marketing alliances. In addition, a number of these institutions have established standalone digital offerings (in contrast to classical branch-based checking accounts) to create sub-brands catering to the Gen Y market. An example is OCBC with its FRANK product targeting students and young professionals.

Second, in many parts of Asia, as in Africa, nonbank service providers, particularly telecommunications companies, have *successfully tapped into unbanked and underbanked segments* of the population, often using low-end phones and SMS technology as the basis for conducting simple remittance transactions, such as Globe in the Philippines. McKinsey estimates that in Asia there are approximately 900 million people outside the banking system (Exhibit 1). Most, however, have a mobile phone which in most markets allows them to send and receive money and purchase products.

Thus, telecommunications and digital media companies have carved out a crucial role as providers of basic financial services in a space where banks have found it hard to offer a suitable proposition. For these disruptors, the value is not in the fees or float generated from the payments themselves. Rather, McKinsey research shows that telecommunications firms that enroll their customers in payments applications reinforce customer loyalty, reducing churn by up to 80 percent. In some cases mobile payments have been paired with simple, bank-like, mobile-based products, such as stored value and consumer credit, scored on the basis of transaction history and other data accumulated over time. As governments seek to bring poorer segments of the population into the mainstream of financial services, these nonbank mobile innovations are playing a vital role with a significant social impact.

Third, *new innovations are growing at unprecedented speed and reaching critical mass faster than ever.* In five years PayTm in India has grown from a mobile app for recharging telephone accounts and paying utility bills to a broad e-commerce platform with 80 million registered users conducting an average of 60 million transactions each month. WeChat payments, launched in 2013, processed approximately one billion *hongbao* or "red packet" peer-to-peer transactions during this year's Lunar New Year's Eve holiday alone. The payments app has helped WeChat evolve into a comprehensive ecosystem centered on individual and group chat and encompassing diverse services such as taxi bookings and social media.

Several drivers are increasing the speed of innovation and adoption, resulting in the rapid growth of national digital giants:

- *Ambiguity in regulations.* Industry standards and rules have yet to catch up with disruptive new models, opening a window of opportunity for rapid innovation, sometimes unregulated.
- *Low barriers to entry.* The costs of IT and mobile development have declined significantly, and companies of all sizes have ready access to talented IT specialists and mobile developers.
- *Critical mass.* Innovators have focused on use cases comprising repeat usage, clear user benefits and a large base of semi-captive users.

Exhibit 1

Developing Asian countries have large unbanked populations, which can benefit from innovations in mobile banking

2014 unbanked population versus mobile phone penetration

Country	**Unbanked adult population[1]** Millions	Percent of adults	**Mobile phone penetration** Percent of total population
India	423	47	73
China	235	21	92
Indonesia	116	64	127
Vietnam	49	69	146
Philippines	46	69	113
Thailand	12	22	144
Malaysia	4	19	148
Developing Asia Total[2]	885	37	92
Developed Asia[3] Total[2]	7	4	120

[1] Aged 15 and over, with no formal bank account

[2] Percents are weighted average by adult population

[3] Including Japan, South Korea, Hong Kong, Singapore

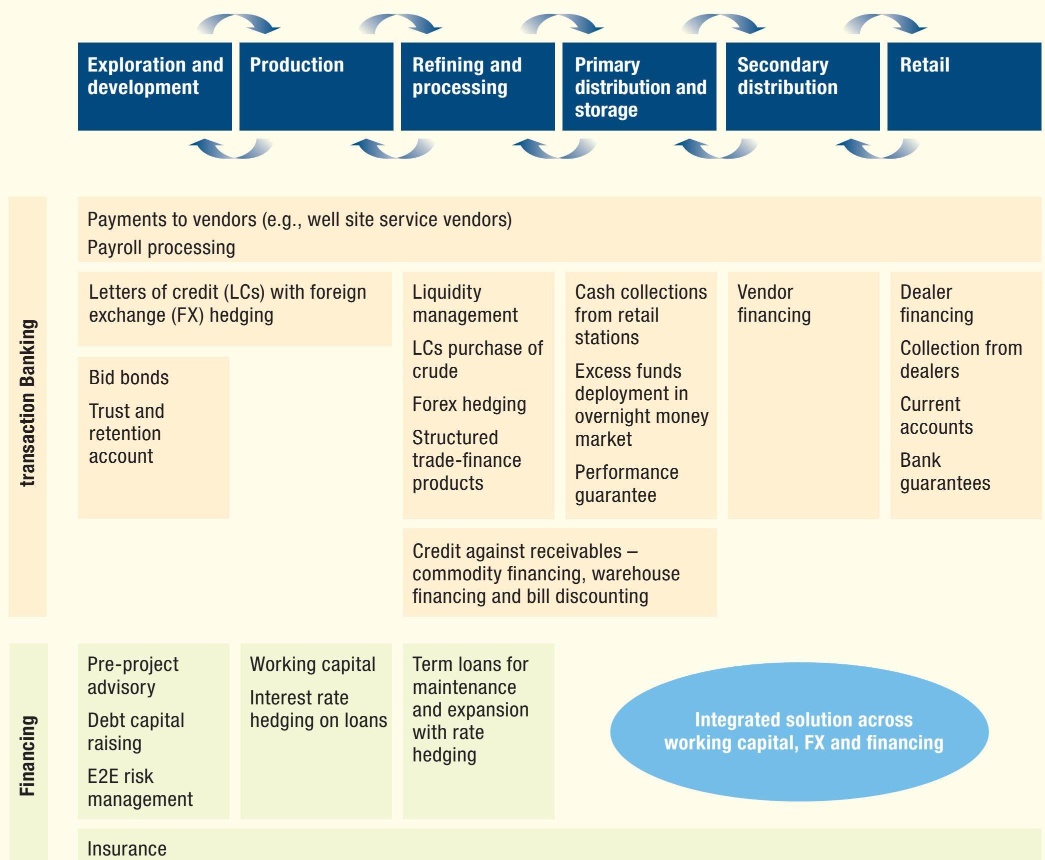
Source: Global Financial Inclusion Database April 2015; WCIS World Cellular Information Service

- *Winner take all.* First-movers have reached a tipping point of adoption and usage, establishing the de facto standard and making it difficult for a new entrant to mount a challenge (see Octopus in Hong Kong, Alipay and Yu'E Bao in China).

Fourth, *digitization is creating new payments and lending models* for businesses of all sizes. Most large corporates in Asia have been operating in a fully electronic environment for several years, conducting all payments electronically and managing accounts, payments and liquidity through treasury modules integrated with enterprise resource planning systems. Banking technology is a priority for these companies, with 80 percent of corporate treasurers citing technology platforms as a key factor in selecting a bank. In recent years, both global and local banks have built cash management platforms, and the capabilities of local banks now match those of global banks in many markets. In addition, nearly three-quarters of banks in Asia offer mobile-based cash management tools, which are used heavily by 70 percent of large corporates to manage accounts and, in many cases, to initiate payments.

Exhibit 2

A leading bank offers an integrated solution across the energy value chain



Source: McKinsey & Company

A number of banks are distinguishing themselves by introducing proprietary business-to-business (B2B) commerce platforms. For example, some have developed integrated solutions across supply chains, automating the order-to-payment process and optimizing cash flow efficiency between large corporates and their suppliers, dealers and sub-dealers (Exhibit 2). One bank has created a client-centric solution where relationship managers benchmark the efficiency of the supply chain for their clients and identify solutions to help them unlock cash trapped in the supply chain. With over $5 trillion trapped across supply chains in Asia, these innovations allow the bank to create significant value for their clients, reinforce client loyalty and build new revenue streams.

> While large corporates have eagerly embraced digital channels, small and medium-sized enterprises in Asia continue to rely heavily on cash and branches, with a significant impact on the region's mix of payments.

While large corporates have eagerly embraced digital channels, small and medium-sized enterprises (SMEs) in Asia continue to rely heavily on cash and branches, with a significant impact on the region's mix of payments. Cash accounts for 90 percent of B2B transaction volume in Asia; cash and checks together account for approximately 40 percent of B2B transaction value. Banks have introduced a variety of initiatives to draw SMEs to digital payments. For example, Axis Bank in India has launched Swipe On, which allows merchants to receive card payments using lower-end "feature phones" as well as smartphones, providing a stepping-stone to non-cash alternatives for a variety of small and micro businesses, from retail merchandisers to taxi drivers. In addition, many consumer-oriented companies are already benefiting from the new levels of speed, efficiency and transparency made possible by recent infrastructure upgrades in various markets, such as IMPS in India and FAST in Singapore. Research indicates that these efforts are paying off. For example, a McKinsey survey of more than 750 SME customers in India shows that online and mobile channels are, for the first time, overtaking the branch channel in terms of number of interactions.

Some nonbank service providers, however, are ahead of banks in end-to-end digitization for SMEs. Visa, for example, has partnered with Invapay and Kofax to create an automated invoicing and payables platform for SMEs across 11 markets in the Asia-Pacific, with the goal of helping them make the transition from document-intensive processes to electronic invoicing, payments and reconciliation. Amazon India recently launched pilots for B2B procurement and selling, to help both SMEs source supplies and manufacturers and distributors sell Indian goods abroad. In China, Alibaba has leveraged its B2B e-commerce platforms to build a full financial system to serve SMEs. Nearly one in ten of the seven million merchants selling goods on Alibaba's TMall has received a small loan, for a total of $2 billion in outstanding loans. Furthermore, Alibaba's Ant Financial Micro Loan program has extended $64 billion in micro loans since 2011. Even business-to-consumer companies such as Snapdeal and Flipkart in India are beginning to target SMEs selling on their platforms for digital lending and payments.

The success of the credit aspect in e-platforms in Asia deserves special attention, as it relies on customer transaction history in order to underwrite loans to small merchants about which there is little or no public information. In Australia, OnDeck has partnered with MYOB to lend on the basis of accounting data. In China, e-commerce site JD.com recently partnered with U.S.-based ZestFinance to offer micro loans to SMEs and entrepreneurs, using machine learning technology to score small businesses on the basis of diverse data, with faster processing, higher approval rates, reduced collateral requirements and lower risk of default—all amounting to convenient, accessible loans at favorable interest rates. By contrast, banks across Asia have traditionally neglected the SME segment, due largely to the difficulty of assessing risk. If they are not able to support end-to-end digitization of SME business processes in combination with improved access to credit, incumbent banks risk ceding dominance of this profitable segment to digital innovators.

Fifth, the *emergence of industry-wide platforms* is bringing new competitive challenges and opportunities to incumbent banks. Various nonbank entities (including fintech innovators, third-party service providers and industry organizations) are building new platforms to streamline payments clearing and digitize the exchange of payments-related information (Exhibit 3). Either as competitors or service providers to incumbent banks, many of these entities directly attack important profit pools, including current accounts, cross-border payments

Exhibit 3

Fintech providers are both competing and collaborating with banks

Approach to technology	Examples
Acquire solutions from tech start-ups	**Bill.com** Cash management solution for SMEs **Currencyfair.com** Peer-to-peer online transaction solution
Partner with service providers	**SWIFT's EBAM** Electronic account management **Bolero Exchange** Cloud-based multibank trade platform **Thomson Reuters ACCELUS** Shared KYC and compliance database
Partner with third-party platforms	**Syncada** Integrated, fully-automated supply chain platform **Earthport** Low-cost straight-through processing international payments **Ripple** Open payment protocol for real-time international payments

Source: Web sites; McKinsey interviews

and foreign exchange. Transferwise, for example, provides a low-cost foreign exchange remittance platform, which enables clients to transfer money overseas with the best exchange rates by matching the remittance with people sending money in the other direction. Ripple has created an open payments protocol for international payments, enabling real-time settlement and clearing and reducing the need for intermediaries. Innovations introduced by entities that work closely with banks can also erode revenues. For example, Bill.com provides a payables and receivables solution for SMEs, and SWIFT has introduced EBAM (Electronic Bank Account Management) and the TSU (Trade Services Utility), a workflow engine that supports the bank payment obligation, a paperless trade instrument supported by third-party clearing.

Streamlined processing architectures and real-time integration of diverse types of data are making it easier for corporate and SME clients to replace one solution with another. While in-house platforms offer clear advantages in terms of control, customization and branding, the cost to service providers for refreshing proprietary technology can be very high. With these considerations in mind a number of banks are partnering with fintech start-ups as well as third-party service providers to create a seamless channel experience for their clients. Banks must, therefore, consider carefully where to advance their own solutions and where to partner, even if it means forming an alliance with a potential competitor or giving up hitherto strong sources of revenue.

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The five trends discussed above show that nonbank innovators are well-positioned to benefit from the rapid growth of digital commerce in Asia. Indeed, it is these payments innovations launched by nonbank fintech companies that have the potential to disrupt existing business models and market dynamics and shape the next generation of corporate and consumer behaviors. Given the importance of Asia in driving trade growth around the globe, the evolution of corporate, small business and consumer payments in Asia presents challenges and opportunities for counterparties and their service providers in diverse regions.

Chris Ip *is a director in the Hong Kong office,*
Pine Kyaw *is a consultant in the Singapore office*
and **Akash Lal** *is a principal in the Mumbai office.*