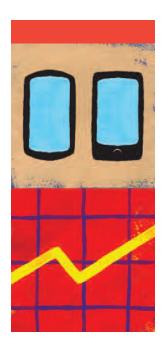
Volume 8, Number 22

October 2015



McKinsey on Payments

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Matt Higginson Steve Krieger Wings Zhang

16 in 2016: Trailblazing trends in global payments

Diverse trends are driving deep structural changes across the global payments industry. On the retail side, consumers' use of mobile devices to shop both online and in-store is pushing merchants to adopt increasingly complex and powerful technology. On the corporate side, a new generation of solutions raises hopes among corporate treasurers of improved transparency and predictability of payments and the steady reduction of costly obstacles, especially in cross-border payments, where liquidity is trapped in document-heavy processes.

To put these trends in perspective, this article presents 16 predictions and observations distilled from recent conversations with executives in the payments arena around the globe. Each topic will help shape the payments arena and should figure in the strategic thinking of banks, card companies, processors and technology providers as they determine the best path and the right partners. Depending on size, client base and market position, their strategy will aim to defend core business, mount a charge of creative destruction, or strike a balance between the two.

1. As shopping moves in-app, digital payments displace cash

Multichannel shopping puts the consumer front and center, and creates new sources of value for merchants. Mobile devices have become the "digital container" of our daily lives—communications, planning, shopping, health, transportation—making "in-app" the new battleground for both online and instore shopping. The persistent strengths of cash—convenience (cash is versatile and widely accepted), control (cash is final and spend is limited to cash in wallet) and value (it's free, at least in appearance)—vanish in a digitizing world:

- Convenience: Stored preferences and account information enable both the automation and personalization of payments, which can be initiated anytime, anywhere, with virtually no geographic boundaries.
- Control: Smart tools to control expenditures, increase savings and improve budgeting afford much broader control and stronger financial management than cash.

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• Value: Repetitive interaction enables merchants (usually in cooperation with their payments and data analytics partners) to extend offers and services tailored to a consumer's location and needs.

As consumers increasingly use their phones, tablets and computers to shop anytime, anywhere, merchants need to keep track of individual consumers across channels to ensure a consistent consumer experience.

2. Multichannel solutions win as channels converge

As consumers increasingly use their phones, tablets and computers to shop anytime, anywhere, merchants need to keep track of individual consumers across channels—online, mobile, proximity—to ensure a consistent consumer experience. In order to stay in touch with the consumer at each step of the searchevaluate-buy-bond cycle, most merchants will forge partnerships and alliances with data analytics specialists and digital innovators.

To keep up with merchant requirements, payments companies must, therefore, be prepared to deliver integrated, multichannel solutions that combine, for example, preauthorization, split payments and customer analytics across channels. This will require expanded capabilities (see #5) and strategic partnerships (see #15 and #16).

Digital wallets have a key role to play in multichannel convergence, and in order to stand out from the competition, some wallets will incorporate multiple loyalty programs in order to determine the best deal by weighing card offers (e.g., extended warranties, special financing), store coupons and loyalty points, among others. While users value a unified, ubiquitous experience, data ownership and privacy have become major strategic considerations for consumers and merchants alike, as illustrated by Apple Pay's insistence on not collecting payments data (see "Digital wallets: Minding the consumer adoption curve" page 26).

3. Migration to EMV ignites mobile payments

The migration to EMV standards across multiple regions outside Europe requires most parties to invest in chip technology. While issuers and acquirers bear the largest part of migration costs (converting all cards and acceptance technology from magnetic strip to EMV chip), merchants who fail to install chip readers assume huge financial risks in the form of liability for fraudulent transactions.

Some merchants are still oblivious to the new standards; however, many others are using the conversion as an opportunity to implement mobile payments solutions, including wallets, mobile payments terminals (e.g., Square, iZettle) and QR-payment applications (e.g., Zapper, LevelUp). As a result, mobile payments solutions will see exponential growth in specific regions and verticals, such as gas stations, events and ticketing, and health and beauty.

4. Nonbanks will continue to lead in peer-to-peer

Peer-to-peer (P2P) payments remain a stronghold for cash in most markets, as many incumbent banks, being risk-adverse or unprepared to cannibalize traditional

sources of income, have yet to make an airtight business case for P2P solutions. By contrast, digital innovators, including Pay-Pal, Alipay, TransferWise and Venmo, have realized benefits from P2P payments far beyond authorization, clearing and settlement and threaten to displace traditional banks from this important category of payments. The main sources of value in P2P include:

- Cross-sell opportunities with related services (e.g., through booking, ordering, shopping, gifting, donating)
- Marketing insights derived from payments and browser data (e.g., used for event-based offers, promotions and marketing)
- High margins among small and mediumsized merchants with consumer-like behaviors
- Attractive currency exchange margins on cross-border remittances

Knowing how to extract value from data is the core competitive requirement in multichannel commerce.

5. Bigger, smarter data requires bigger, smarter capabilities

Knowing how to extract value from data is the core competitive requirement in multichannel commerce. Data-rich solutions use powerful technology to capture and process data across channels and along each step of the value chain in order to provide real-time insights into the needs and preferences of retail consumers, SMEs or large corporations. Traditional payments companies, burdened

with legacy systems and a chronic deficit of top digital talent, must adapt to a new era of cloud-based data warehousing, application program interfaces (APIs), faster solutions development and launch, and periodic reliability-testing (e.g., hackathons) to reap the potential of big data in three areas:

- Dynamic business steering, adjusting aggressiveness in specific customer segments at specific moments of time (e.g., risk appetite, pricing, payments conditions)
- Insights- and behavior-driven marketing, including micro-campaigning, cross-selling, retention
- Data-rich consumer and enterprise applications, simplifying onboarding and servicing, reducing fraud and risk, and enabling spend comparisons

6. Loyalty enters a new age

Digital loyalty programs have become crucial for merchants to understand the needs and behaviors of their customers and to maintain market share. As a result, merchants are increasingly turning to payments companies to integrate loyalty features with payments services, either as turnkey solutions or by supplementing merchants' proprietary solutions. Depending on the markets they serve, payments service providers should support one or more of the four main types of loyalty programs:

• Segment-oriented programs, enabling micro-segmentation with tailored offers and service levels (e.g., Amazon Mom, myWaitrose) or segment-specific platforms with tailored campaigning features (e.g., LevelUp, Belly)

- Personalized offers, leveraging consumer purchase patterns to craft specific offers tailored to individual needs and behaviors (e.g., Tesco Clubcard, BankAmeriDeals)
- Geo-targeting, offering benefits linked to repeat purchase and consumer location (e.g., Groupon, Starbucks)
- Multi-merchant coalitions, where consumers can earn and redeem loyalty currency across a network of merchants (e.g., Air Miles, PayBack)

Increasingly, merchant point-of-sale applications operate in the cloud, reducing the need for bulky hardware and enabling faster roll-out of new solutions. Also, recent acquisitions by terminal hardware manufacturers signal the strategic importance of pushing merchant offerings beyond the limits of POS hardware.

7. New regulations prompt new service offerings

Spurred by new regulations, depository institutions and third-party processors (TPPs) will compete directly for transactions and customer data. In Europe, for example, regulations cap interchange fees and open the European Economic Area for cross-border acquiring. Similarly, the new Payment Services Directive (PSDII), now close to final approval, will enable TPPs to access accounts for information (e.g., balance information) and payments initiation.

Partnering with data analytics specialists and digital innovators, TPPs will be able to compete directly with banks for consumer and corporate transactions and the associated data.

To fend off the attack, leading depository institutions will need to integrate more diverse financial services on their digital platforms. This will likely entail not only full functionality (account opening and closing, customer service, loan applications) on retail and commercial banking apps but more competitive rates on financing (on the basis of more accurate credit scoring), seamless access to mortgage applications and servicing, mutual funds and stock trades and comprehensive financial planning tools.

8. Cloud-based point-of-sale services enable further specialization

Increasingly, merchant point-of-sale (POS) applications operate in the cloud, reducing the need for bulky hardware and enabling faster roll-out of new solutions. In addition, recent acquisitions by terminal hardware manufacturers such Ingenico (which acquired Ogone and GlobalCollect) or Verifone (which acquired Point) signal the strategic importance of pushing merchant offerings beyond the limits of POS hardware.

Commerce is too vast for a single provider to address specific needs in multiple merchant verticals, and specialized providers such as Micros in the restaurant and hospitality segment demonstrate the relevance of vertical-specific value propositions (e.g., table booking and mobile payments for restaurants). Payments processors also recognize the value of owning both the payments platform and merchant interface, while allowing

other service providers to broaden the offering by using APIs to integrate their services with cloud-based applications.

9. Domestic infrastructures move to real-time

Over 22 markets across the world are upgrading national payments infrastructures, improving speed, cost and security for merchants and consumers. In Europe, real-time direct-to-account payments solutions are becoming the norm, with Denmark, Sweden and the UK in the lead. Current discussions among regulatory bodies aim for a pan-European real-time payments infrastructure. Domestic payments system operators in Canada and the U.S. have recently begun to overhaul their systems as well. (See "Transforming national payments sys-

The current low interest rates in major markets challenge the economics of what has been the prevailing model for the payments business: interest income on daily balances.

tems," *McKinsey on Payments*, September 2014 and "Faster payments: Building a business, not just an infrastructure," *McKinsey on Payments*, May 2015.)

By extending access to nonbank technology companies, these upgrades are encouraging faster innovation and setting new benchmarks for cost-efficiency and accessibility, as illustrated by online merchant payments platforms such as Sofort (Germany) and Klarna (Sweden), Barclay's PingIt (UK) for P2P and C2B mobile payments, and Earthport in cross-border corporate payments.

10. Cyber attacks will increase

Wary of increased costs and reputational damage caused by cyber attacks, merchants' and payments companies' investments in cybersecurity are at an all-time high. Tokenization, where card details are replaced by a substitute number (or "token"), is poised to become the strongest deterrent to digital card fraud and a vital complement to end-to-end encryption/point-to-point encryption.

While competition among various tokenization service providers in North America has produced diverse standards, the rest of the world remains at a nascent stage. Tokenization comes in two forms:

- Issuer tokenization, where card schemes such as MasterCard and Visa tokenize card numbers uploaded into digital wallet applications such as Apple Pay
- Acquirer tokenization, where payments services providers tokenize sensitive data such as card details held "on file" by merchants, thus reducing risk as well as the scope (and cost) of industry compliance requirements for merchants

11. New revenue models strengthen fee income

The current low interest rates in major markets challenge the economics of what has been the prevailing model for the payments business: interest income on daily balances. Taking a cue from digital companies, where consumers may buy a license, pay a subscription fee or allow access to data in return for using a service for free, banks are adopt-

Exhibit 1	Customer	Description	Typical pricing model	Examples
Digital companies offer three main pricing options	1 Owns the solution	Fee to buy and own the product or service Pricing typically driven by the value of the product or service Product becomes the customer's asset	Fee per transaction "Enriched" fee per transaction	iTunes Amazon
	2 Uses the solution	Indemnity for using a product or service Product ownership remains with the provider; only subscribers can use the product or service Pricing typically driven by usage	Subscription/flat fee License	Netflix WhatsApp
Source: McKinsey	3 Generates data and insights which can be monetized	Customers do not pay for the product or service Customer information (profile, behavior, usage) is monetized Product ownership and customer data remain with the provider	Free "Freemium"	Spotify Google Facebook

ing pricing models that will build more stable revenue (Exhibit 1).

12. Blockchain promises innovation in corporate banking business models

Bitcoin's blockchain technology, in which each transaction generates a "block" containing an authenticated history of all prior transactions in the network, bonds participants in a marketplace without intermediaries. As the basis for distributed ledgers, blockchain technology is expected to be a key driver of disruptive innovation across the financial services industry. While the impact of Bitcoin on the payments landscape has so far been negligible, leading financial institutions (including Citibank, UBS, Deutsche Bank and Standard Chartered) are starting to explore the capabilities of distributed and collaborative architectures to increase speed and flexibility and reduce costs.

The blockchain promises to streamline cumbersome, costly and risky correspondent net-

works. It also has the potential to replace existing proprietary ledgers, enhancing transparency, improving the predictability of settlement and reducing operating expenses significantly in securities trading and similar over-the-counter situations. If distributed ledgers become the basis for the booking and transfer of public securities, they will bring about significant changes in post-trade activities such as clearing, custody and cash management.

13. Digital banks prove the shift in the trust paradigm, starting with daily banking

Digital-native banks, such as Atom Bank (the first to receive a full banking license in the UK) challenge the deeply rooted assumption that physical branches are necessary to generate trust. There is little question, however, that in time consumers and corporate decision-makers will prefer the enhanced convenience, control and value of digital banking to bricks and mortar.

our attacker	Digital attacker banks	Process/business model disruptors	Non-banking technology attackers	Platform attackers
nrchetypes, pursuing lifferent strategic objectives	ING Direct Hello Bank! Simple	Stripe Pingit MobilePay	Starbucks Tesco Uber	Apple Google Alibaba
•	Disrupt rather than be disrupted	Address unmet customer needs	Expand along the value chain	Create the ecosystem
	Protect and grow core business Value proposition for new customer segments Lower cost-to-serve through new channels	New use cases and revenue models Enhanced customer experience Lower cost-to-serve through increased efficiency	Deeper share of wallet with current customers Expansion along the value chain, providing end-to-end offering	"Logged-in ecosystem" around core offering (eCommerce, technology hardware, software)

Digital banking apps have already become a standard offering across the globe, functioning in some cases as a "control tower" for customer relationships. Ross McEwan, CEO of RBS, has noted, "Our busiest branch in 2014 is the 7:01 [train] from Reading to Paddington."

While established providers gradually expand the functionality of their banking apps (from view-only information to internal transfers, bill pay, external transfers, etc.), a new generation of digital-native banks is bringing improved standards of cost-efficiency to the industry.

14. Digital challengers extend their claim to "own the customer"

Contributing to unprecedented levels of competition for payments revenue among a widening field of players, fintech innovators pursue different strategic objectives.

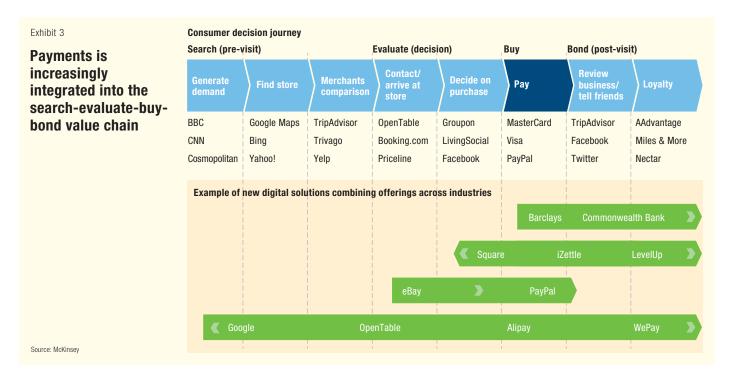
While "digital attacker banks" (e.g., ING Direct, BNP Paribas' Hello Bank) go on the offensive to solidify their core business, "process or business model disruptors" (e.g.,

Stripe, Danske Bank's MobilePay) focus on building market share through more compelling customer experiences, and "non-banking technology attackers" leverage payments as a way to deepen their share of wallet with customers of their core offering and provide an end-to-end offering. Posing a particularly broad threat to incumbents, "platform attackers" (e.g., Apple, Google) create logged-in ecosystems (often comprising operating system, hardware, customer relationships and servicing), thereby obtaining an extremely rich view of customer behavior and motivations (Exhibit 2).

Regardless of the type of innovator, payments remain the strategic enabler of new commerce offerings and changed economics.

15. Strategic partnerships increasingly crucial to serve the full value chain

If incumbents are to support consumers through the entire search-evaluate-buy-bond cycle, they must find the right partners to gain the necessary access, skills and expertise (Exhibit 3).



OpenTable provides an instructive example of broad capabilities acquired over time through a combination of acquisitions and partnerships (e.g., Yelp or Facebook). The result is a best-practice example of end-to-end integration, which enables OpenTable to accompany consumers through their search and comparison of restaurants, from table booking and transportation, to payment at the table and loyalty.

16. The next M&A wave has started

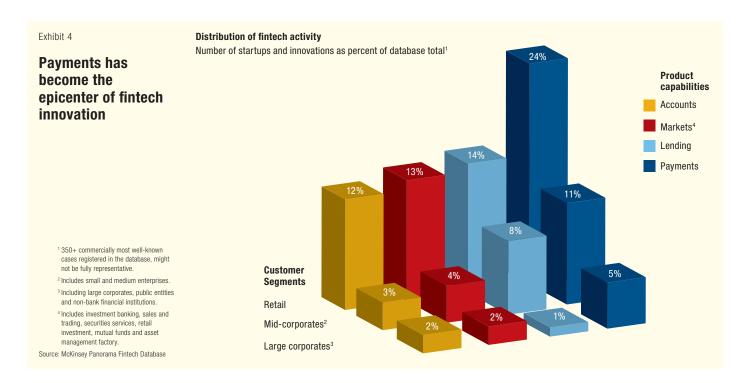
While a number of large incumbents have successfully launched next-generation payments solutions, most banks are still seeking an expedited path to develop and launch innovative digital solutions. With nearly 5,000 fintech companies focused on payments, making it the most active category in the fintech space (Exhibit 4), acquisition is at present a highly attractive way

to build skills and scale rapidly, despite the known challenges of integrating cultures and systems.

Global investments in fintech ventures reached an all-time high of \$12 billion in 2014, and the high valuation multiples of recent transactions, including Global Payments, Micros, Clear2Pay or ICBPI, signal intensifying competition among investors to acquire payments innovators. The coming months will almost certainly see this wave of fintech acquisitions gain momentum.

* * *

To win in the new payments arena, banks and other service providers must strike the right balance between defensive moves and creative destruction. This requires deep thinking and analysis along four strategic dimensions:



- Organizing for digital payments, with a clear digital payments strategy and customer focus
- Defining unique, customer-centric value propositions that can be embedded into the relevant ecosystems and search-evaluate-buy-bond value chains
- Leveraging upgraded domestic payments infrastructures to launch cheaper, faster and more secure solutions
- Developing strategic partnerships to access the necessary assets, skills and capabilities.

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