Payments 2020: Scenarios for dynamic evolution

A series of shocks have launched the global payments industry into a transition that promises to redefine parts of the value chain for years to come. In advanced economies, the financial crisis has dramatically altered the traditional bank-led payments landscape, as some players exit the business and new regulation changes the rules of the game. In emerging markets, rapidly evolving payments players are leapfrogging into new systems. In both markets, new technologies are redrawing the way consumers behave and opening the door to new competitors. Over the next 10 years, several possible scenarios could set the stage for emerging payments – innovative mechanisms like online, mobile and prepaid card payments – to redefine the payments landscape across markets and within niche areas.

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The forces of disruption

Shocks to the payments system are coming from several sources: regulation, technology, consumer behavior, merchants and competition. The current convergence of these trends is unprecedented in force and will transform the structure of the industry in important ways.

- *Regulation.* Governments are shaping the competitive playing field within and across borders. In the wake of the financial crisis, many are rewriting the rules.
- *Consumers.* Consumers are demonstrating a strong willingness to change their behavior. As evidenced by deleveraging in advanced economies, deeply entrenched behaviors are shifting, presenting the opportunity to recast preferences.
- *Technology.* The rapid spread of smartphones and Internet access has attained sufficient scale to offer a compelling alternative to existing payments mechanisms. (See sidebar, "How smartphones are changing mobile payments," page 13.)
- *Merchants.* A critical segment of the payments landscape, merchants are increasingly active in point-of-sale (POS) innovations. Merchant-funded, personalized rewards offerings may drive new products.

- *Competition.* Banks, payment networks, processors and other payments incumbents are increasingly encountering competition from mobile carriers, Internet players, software providers, retailers and other new entrants as the landscape evolves.

As acceptance and usage of payments instruments grow, their benefits to users (both consumers and merchants) increase exponentially.

Together, these forces are changing the payments market in ways that few would have predicted just several years ago. Examples of significant changes include debit card interchange legislation in the United States, China UnionPay's international expansion, mobile money adoption in Africa, and evolving regulation driven by the Reserve Bank of India to encourage the use of mobile for financial inclusion. Potentially powerful new strategic partnerships are emerging in mobile payments, such as "Isis," the mobile payments solution in development by U.S. mobile carriers. New alliances are being struck between upstart payment networks, including that of PayPal with China UnionPay. These developments underscore the potential for dramatic change in the industry.

The rules of disruption

Two major forces will dictate the pace and scale of change: the dynamics of network competition and the success or failure of emerging payments offerings.

Dynamics of network competition

The strategic principles of two-sided networks anchor the competitive dynamics of the payments industry. Within this parameter, payments offerings must simultaneously meet the needs of both consumers and merchants. As acceptance and usage of payments instruments grow, their benefits to users (both consumers and merchants) increase exponentially.

An alternate network can replace an existing network if it provides similar or better services, as with e-mail's displacement of traditional mail and mobile phones' supplanting of landline phones. As online and mobile networks grow in popularity and sophistication, their potential to displace existing networks increases. China's online payments standard, Alipay, is a compelling example of a new player leveraging the online network to offer a new payments standard – to the exclusion of incumbent payment networks.

The forces of success

Even when they offer a better way to pay, new payments offerings rarely succeed. They take hold only if one of three forces is at work: the "dictator effect," simultaneous demand or extension into underserved markets.

- The *"dictator effect"* can be achieved by players who control wide swathes of infrastructure and markets and have the power to dictate standards and payment types. In Japan, for instance, large corporations that control railway system access, banks and mobile companies helped establish the Suica market standard and spur adoption.
- *Simultaneous demand* refers to a player that offers a materially better option that satisfies both consumer and merchant demand at the same time. Too often, payments innovators focus on just one of these two parties. An example is Pay by

Touch, a biometric-based payments company that over-indexed on merchant funding costs and underestimated consumer adoption needs.

- *Extension of payments offerings* into underserved areas is often a compelling source of growth. At present, mobile POS acceptance – fueled by innovators like Square – is expanding the payments market into new merchant verticals, while online social networks such as Facebook and Zynga (Exhibit 1) are fueling innovation with multiple payment forms.

Payments 2020

According to McKinsey's Global Payments Map, worldwide payments industry revenues exceeded $900 billion in 2009. Over the next 10 years, technological advances and competitive intensity will lead to the emergence of alternative payments offerings. The interplay between these forces illuminates potential winning and losing outcomes for payments players. Notably, we see these dynamics playing out at various levels – in national markets, in local markets and in niche payments applications.

Of the four potential scenarios for payments in 2020 (Exhibit 2, page 12), only one (Scenario 3) would leave the landscape largely unaffected by innovation and new entrants. The other three portend big changes, whether in the form of innovation led by incumbents or as a landscape reconfigured with new player successes.

Scenario 1: Incumbent-led innovation

In this scenario, established payments players successfully adapt to consumer and technology changes and maintain their dominant position. Broadly speaking, banks and existing payments networks successfully

Exhibit 1

Online social games are offering innovative forms of payment

Payments offerings

1. **Online game - virtual currency**
   - Digital currency allows for purchase of digital goods within online game environment
   - Exchange rate set by game company
   - Can facilitate in-game "free markets" where players trade
2. **Credit & debit payments**
   - Traditional form of payment linked directly to bank card
   - Best payment mechanism for larger-ticket purchases
   - Typically signifies customer "stickiness"
3. **Social network currency**
   - Currency of social network platform
   - Facilitates usage of both applications and currencies
   - Introduces exchange dynamic between platforms
4. **Pay-by-mobile**
   - Mobile-online hybrid payment options
   - Driven by carrier billing to monthly statement and payments companies that manage mobile network operator acceptance
5. **Prepaid gaming cards**
   - Prepaid gaming cards purchased at retail locations can be redeemed for online virtual currency in game
   - Product aimed at customers without their own bank cards or mobile phone (e.g., teenagers, students)

Source: Screenshot from Farmville game; McKinsey analysis

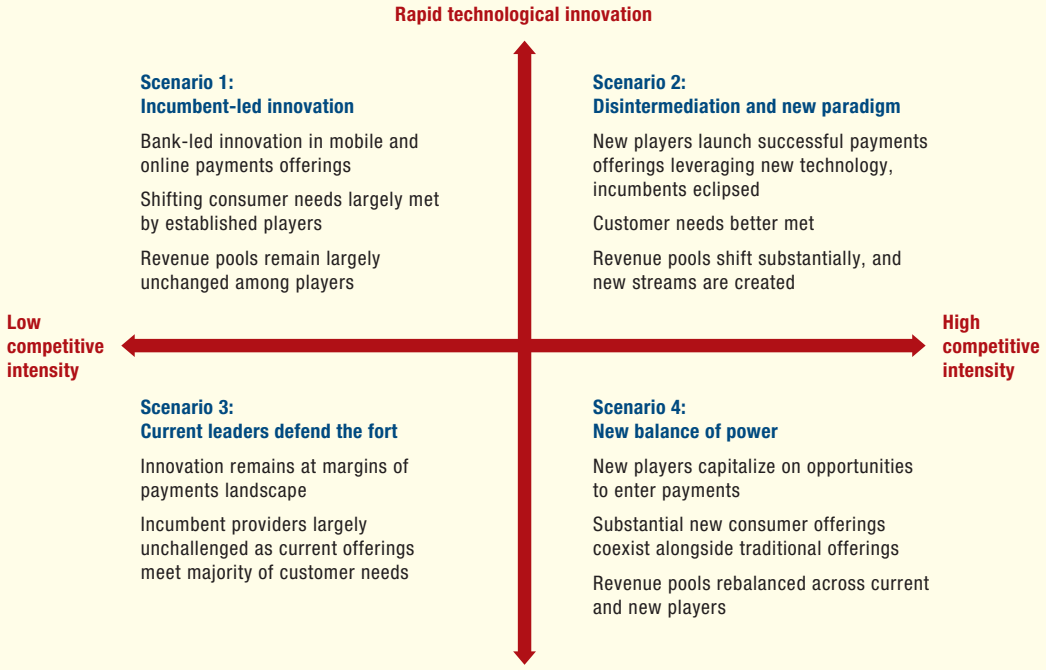
adopt mobile and online payments technology. Profit pools in this scenario remain predominantly held by the incumbent players. Consumers adopt new payments forms but do not radically change how they pay, except in niche groups with unique needs. A representative Scenario 1 development would be online payments for digital goods on social networks (e.g., Boku and Zong). In this scenario, such hybrid payments offerings would proliferate and eventually become commonly accepted online, but the carrier-based billing platform would fail to migrate into larger-ticket or offline transactions. Thus the success of the postulated hybrid payment form would be limited to serving specific needs rather than completely displacing the existing architecture.

Scenario 2: Disintermediation and a new paradigm

In this scenario, we see potentially major disruption to incumbents if consumers substantially alter their payment behavior. The example for this scenario is international remittance and money transfer. With over $440 billion in annual flows, the remittance industry remains primarily agent-based, with network effects driven by the size and convenience of physical agents that provide cash-in/cash-out services. Through competitive alliances between mobile carriers and retailers, however, mobile money could supplant this system. The emergence of a widespread person-to-person (P2P) mobile money transfer application – in which carrier-based billing offerings successfully transition

Exhibit 2

Competitive intensity and technological innovation will shape the future of payments



Source: McKinsey Payments Practice

How smartphones are changing mobile payments

The rapid spread of smartphones has reached the point where these devices will offer a compelling alternative to existing payments forms. The McKinsey iConsumer survey of 20,000 consumers in the U.S. found that smartphone users are more willing to use their phones for advanced functions (e.g., location-based services such as mobile coupons and mobile purchase of consumer goods such as electronics, books and video games) than basic phone users (Exhibit A).

Growth in these devices has been determined primarily by innovation by players such as Apple and by mobile carriers' quest to improve their declining revenues per user by promoting low-cost smartphones with the expectation of capturing data revenues.

Smartphones differ from basic phones in the following dimensions, which drive advanced payments usage:

Enhanced capability. Smartphones have more computing power than basic phones, allowing users to browse and run applications. This additional power has allowed smartphones to become payments instruments (e.g., Starbucks' 2D barcode prepaid card) as well as payments acceptance devices. Moreover, location-based and image-capture capabilities are opening a broad set of new functionality.

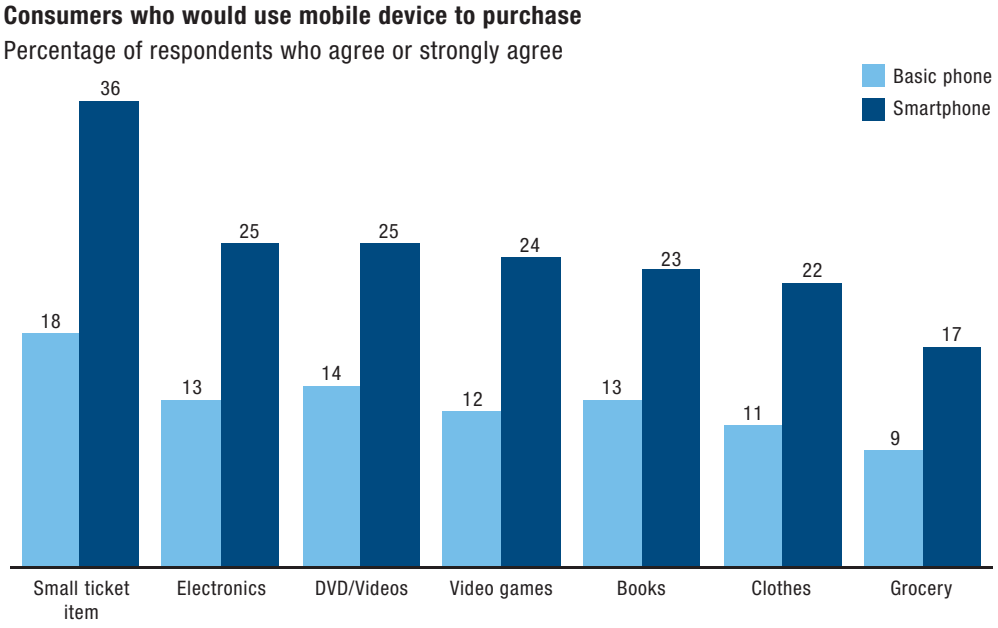
Ease of use. Touch-screen interfaces, enhanced keypads and intuitive user interfaces allow for simple navigation, making consumers more likely to engage in new actions with the smartphone. Basic phones are simply more difficult for customers to use effectively for complex transactions.

Developer and apps ecosystem. The creation of app stores by handset operating-system players (e.g., Apple, Nokia, Google) has attracted developers who build mobile payments apps (e.g., PayPal, Obopay) and numerous other apps that enhance the consumer experience and usage. This fertile ground helps foster innovation.

Security. Smartphones can enable advanced encryption algorithms that protect users' identity and payments information. This is helping to pave the way for expansion into payments and other sensitive data areas.

Exhibit A

Smartphone users are more likely to use mobile payments compared to basic phone users



Source: McKinsey 2009 U.S. iConsumer survey

offline, and retailers opt in to cash-in/cash-out functions to capture direct fees and indirect store traffic – could replace the existing money transfer operation agent network with a larger, more convenient one. Consumers in developing countries could find the ubiquity of mobile phones and low-cost services superior to the current offering. If low-cost smartphones make substantial inroads into poorer countries, expanding the range of payments and banking services available to the poorest consumers is inevitable.

Scenario 3: Current leaders defend the fort

This is the only scenario in which the status quo is maintained. Incumbents remain largely unchallenged, and innovation remains at the margins.

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Scenario 4: New balance of power

In this scenario, the payments landscape is disrupted as substantial portions of customers and merchants embrace smartphone-based mobile payments. In addition, increasing numbers of customers become dissatisfied with mainstream banking offerings and seek substitutes from other providers, namely retailer-based financial services. This shift, in turn, allows new payments entrants to capture a substantial portion of the industry and extend payments into new areas. The example here involves the future of mobile payments. In advanced markets, Apple could drive major consumer and merchant adoption through a near-field communication-enabled iPhone and an expanded iTunes payments wallet. In Asia's emerging markets, a strategic collaboration between networks and mobile operators could tip the balance. Together, these successes could spill over to adjacent markets in the Middle East, Africa and North America, making mobile a more common instrument. Moreover, retailers, empowered by new legislation and increasingly unbanked customers, could accelerate their entry into payments. Global players might successfully establish retailer-based payments offerings and secure new customers. Profit pools would then substantially shift towards new entrants, and banks' share of profits and customers would permanently shrink.

Implications for payments players

While the future configuration of the payments landscape cannot be drawn with certainty, the forces shaping the industry are clear, and their implications have material consequences for industry players.

For banks in many countries, the customer base and traditional payments revenue models are under stress and have already changed substantially. Unless they focus on innovation, banks may lose additional core customers and revenues as new players exploit the opportunity. These banks should launch targeted mobile pilot programs to better understand the potential economic returns and customer behavior.

For mobile and online players, technological capabilities and customers' willingness to consider alternatives are at a high-water mark. These players should focus on meeting the needs of customers and merchants with con-

venience and security. Areas of focus should be carrier-based billing capabilities and partnerships, and advancing mobile payments standards. If successful, these players may well shift and retain large portions of the payments value chain.

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For payment networks, the implications are more balanced. Their primary concern is to remain relevant to all parties and to deliver mobile payments infrastructure to the market. Networks should consider expanding their client set to include mobile network operators as direct payments parties.

Lastly, retailers have an opportunity to meet the needs of customers by allowing them to pay with the instrument of their choosing. Success here will hinge on timing and trust as they reshape the customer relationship to include financial services.

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Overall, the disruptive potential of emerging payments should present new, valuable options for consumers and merchants. The players that provide these services will surely be the long-term winners in the market.

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