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Monetizing data: A new source of value in payments

From gateways to issuers, today's payments providers have a treasure trove of data at their fingertips. By using it to generate insights into consumer purchasing behavior, and coupling these insights with an understanding of emerging macro trends, payments firms can provide better service to customers—from fraud detection to spending insights. (See “Beyond the buzz: Harnessing machine learning in payments,” *McKinsey on Payments*, September 2016.) But they can also go a step further by capturing emerging opportunities to extract value through the monetization of the data itself, either internally or through third parties. These opportunities extend beyond the boundaries of the traditional payments business and require providers to take advantage of distinctive data sets and apply advanced analytics techniques.

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Payments providers that get this right can tap into a range of benefits, from reaching previously unserved customer segments to opening up new revenue streams through product cross-selling. Capturing these benefits will involve taking strategic steps such as building partnerships and alliances to strengthen existing data or exploring how to future-proof the business as new trends such as peer-to-peer and mobile payments take hold. Payments providers are in a uniquely powerful position to pursue emerging opportunities because they have insights into merchants as well as consumers, and can bridge the gap between them by providing

incentives to influence consumers' choice of merchants. But they also face challenges, such as how to operate successfully within data-privacy constraints and how to deal with disputes on data ownership. Finding solutions will require a thoughtful and gradual approach, starting with the data that is easiest to obtain and that shows promise for value.

This article considers what data monetization offers might look like, examines some of the solutions already available in the market, identifies the challenges that payments providers must overcome, and suggests steps they can take now to make this a fruitful part of their future business.

What are the sources of data?

Any large business or bank has two types of customer data: line-of-business (LOB) data owned by a particular part of the business, and common data, which falls into two groups: enterprise-level data and supplemental data.

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Enterprise-level data consists of the same elements as LOB data—customer preferences, needs assessments, and so on—but spans the organization, and in most evolved enterprises is drawn from a single source, such as a data lake.

Supplemental data ranges from raw data derived from external sources such as social media, weather data, and digital IDs to synthesized, value-added analytics that are captured through predictive modelling, sentiment analysis, and so on.

Payments providers can capture the greatest value and insight by adding supplemental data to their existing internal data. A number of new players are creating value by combining internal and external data in this way, or helping data owners to do so (see sidebar, “Profiting from payments data: Early examples,” page 6).

Up to now these digital companies and start-ups have mostly sought to cooperate with existing payments providers and banks

by providing third-party services, rather than posing a direct threat to their business. However, payments providers would be well advised to explore the possibility of bringing these capabilities and services in house given the value they could deliver, especially at a time when squeezed margins and commoditization are putting pressure on returns from traditional payments services. Moves toward open banking through PSD2 in Europe and similar initiatives can also be seen as a call to action, given that they make access to payments data easier for third-party players that do not own primary client relationships (see article “Data sharing and open banking,” page 16).

On a more positive note, an analysis of the relative strengths of payments providers, banks, telecom companies, retailers and digital firms in terms of their access to customer and merchant data shows that payments providers are well placed to capture emerging data monetization opportunities (Exhibit 1). Payments providers may hold less information on consumers than digital players do, but they have more data on merchants. Compared with banks, they have less data on merchants but more on consumers. And payments providers have better overall access to data than either telecoms or retailers.

Probably the greatest potential of data monetization comes from merging cardholder data with data from the merchant side to gain an end-to-end view on transactions that can unlock additional value. The opportunities include coupling consumers with preferred merchants, channels and potentially products; geo-referring transactions to identify a customer’s location; and understanding the dynamics of local markets at a sub-postal code level. The payments

providers best placed to capture these opportunities are those with a large market share in both issuing and acquiring in specific markets, or those acting on one of the “legs” that are able to develop effective partnerships with players strong on the other “leg”: for instance, a large merchant acquirer partnering with a primary issuing bank.

How is the business developing?

Although data monetization in payments is still in its early stages, it is possible to draw a few lessons from the activity so far:

The target customers are usually merchants. Most use cases rely on charging merchants a fee for a service provided, as with Upserve (see sidebar next page). Cardholders are more difficult to monetize, despite being the main beneficiaries through their free or very

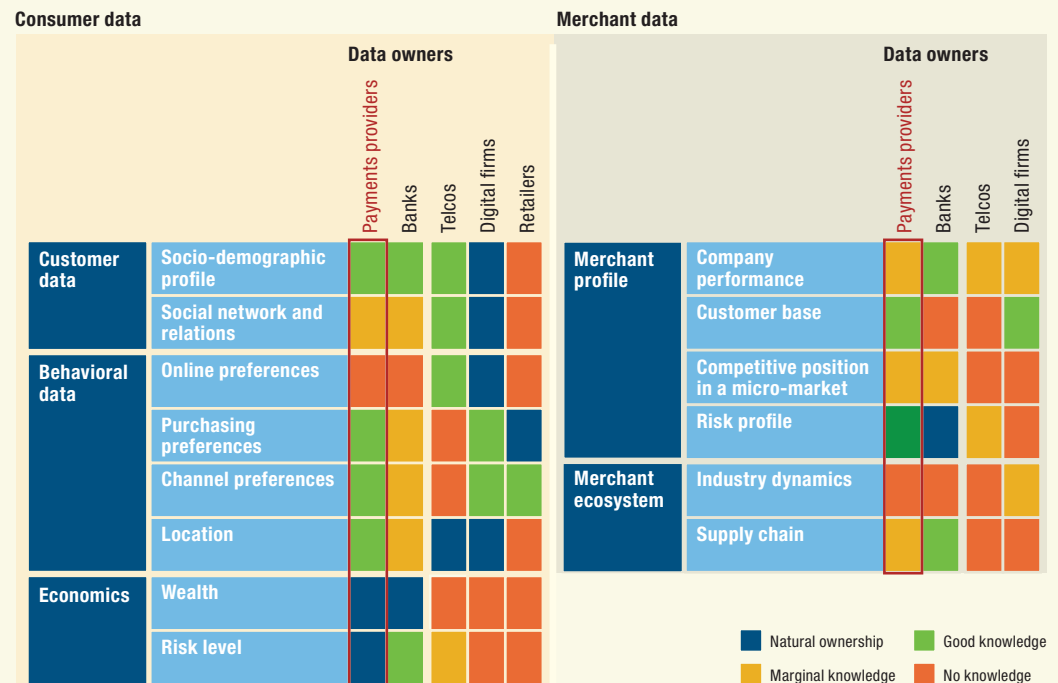
low-cost access to payments and loyalty platforms. Payments providers could offer consumers additional services—perhaps with a “freemium” pricing scheme—to build loyalty, but they are unlikely to generate a stream of new revenues from this source. Value propositions tailored to banks should be investigated, as they could in principle become valuable end customers.

Early successes rely on mobile and online sales channels. Physical channels would require longer set-up times and additional investments as less transaction-level data is available at the point of sale.

A “killer” use case has yet to emerge. Compared to traditional payments providers, start-ups and other third-party providers have not yet gained significant business vol-

Exhibit 1

Payments providers have particularly good access to consumer and merchant data



Source: McKinsey analysis

Profiting from payments data: Early examples

In most of the areas that payments providers could target in monetizing data, solutions are already appearing on the market, often from third-party providers:

Advanced CRM. Upserve, formerly known as Swipely, provides payments and business insights to more than 3,000 restaurants and retailers in the United States. It offers analytics tools to help local merchants improve their understanding of consumer spending patterns by drawing on data as diverse as social media activity and local weather forecasts. To complete the offer, it also provides marketing support to help merchants convert customer insights into real-time offers to drive traffic.

Consumer services. Cardlytics uses advanced analytic technologies to help banks take advantage of their consumer purchasing data. It delivers card-linked location-specific advertising to consumers through their mobile and online banking applications. Consumers see ads for nearby retailers and get cashback rewards from their bank for shopping at those retailers using their credit card. Cardlytics has formed partnerships with more than 400 banks, has more than 10 million users, and has around 2 billion impressions a month.

Financial fitness. Plum helps customers make sensible savings choices by capturing transaction data from their credit, debit and current accounts to understand their behavior; using artificial intelligence to analyze their spending patterns; and initiating automatic transfers to their savings accounts. To interact with consumers throughout the process, Plum uses a chat-based solution within Facebook Messenger.

Risk management. Kabbage uses advanced analytics to calculate the risk score of e-commerce merchants in North America. It provides working capital (similar to a line of credit) to small e-commerce businesses selling through online marketplaces such as Amazon and eBay, and determines advance approval and amounts by using data provided by the merchants and trackable online. This data includes merchants' revenue and net income, purchasing history, customer traffic and reviews, prices and inventory (compared to competitors'), shipping data and social network activity, and Kabbage combines it with conventional business data to calculate a risk score for each merchant.

umes. Success for them is driven more by execution than by data ownership, which for the most part still rests with banks. To unlock real value, data owners need to learn how to work productively with analytics specialists—or, as mentioned above, develop in-house capabilities to provide similar services for themselves.

Partnerships between data-analytics specialists and payments providers are likely to be a common way to capture value. Partnerships like that between Cardlytics and Bank of America offer a means of coupling analytics expertise with channels to reach end customers, such as cardholders and merchants located in the same area.

Pricing models are likely to vary. A typical business might combine a commission deter-

mined by the service provided (such as a cardholder's acceptance of an offer or an ad's click-through rate) with fixed monthly fees. A consulting model could also be added, much like American Express's Business Insights group or Mastercard's Advisory Services, combining real spend data with consulting resources to deliver insight to clients.

The primary challenges

The early experience of first movers in implementing analytics programs to monetize data indicate that payments providers face four critical challenges:

1. Business focus, ownership, and accountability are lacking. Despite significant investment, the use of analytics is still relatively low in the payments business;

most of the activity revolves around creating internal use cases and improving performance, rather than building new lines of business. The prevailing view among leaders is that analytics is best used to help managers make better decisions, rather than to automate those decisions across the board. Scaling analytics to the point where it becomes core to the business model will require broader business adoption, investment in systems and resources, and a single point of accountability.

2. Attracting the right talent is difficult. Companies need to build an attractive environment for hiring, developing and retaining the talent they need, whether it be data scientists, data engineers or digital product managers. And technology talent is not everything; successful companies also need analytics-savvy business leaders who are capable of collaborating effectively with technical teams.
3. There are significant regulatory and reputational barriers to overcome. Monetizing data will require companies to build a deep understanding of privacy and compliance requirements from the very beginning and use them as design principles in shaping new products and services. Setting up an agile cross-functional team with digital talent and corporate compliance and risk experts could provide a firm foundation for developing further expertise. Armed with the necessary knowledge and capabilities, companies could then consider offering customers rewards or benefits for allowing their personal data to be used for commercial purposes.
4. Existing organizational structures will need to be overhauled. The use of pre-

scriptive algorithms and machine-based decisions will require a rethinking of roles and responsibilities, metrics and risk controls across the organization. Some positions will be automated, some operating models and interaction points will be up-ended, and some new roles will be created in areas such as data science and DevOps. All of this needs to be underpinned by appropriate training and change programs, as well as proper controls to ensure the analytical models drive the desired results and can be quickly adjusted as results dictate or as needs change.

Next steps for payments providers

To launch a data monetization effort, payments providers can begin by taking a few practical steps:

Define and prioritize use cases and hypotheses for existing data. Focus on those areas where data is readily available and clean, and where the organization has the key capabilities to deliver.

Ensure the appropriate stakeholders are involved and personally committed. From the front-line business to the back-end technology providers, this will be a team effort in a multi-disciplinary environment.

Draw on non-traditional data sources to strengthen the value proposition for identified use cases (including web behavior, mobile-session data, public blogs, social media and weather forecasts). Use partnerships, data platforms and internal resources to capture customer insights. Draw on external skills too: involve the global community of data scientists by giving them public or sanitized data sets and run hackathons and contests to generate new ideas, models and

techniques. BNP Paribas, Prudential Financial and Santander have already sponsored competitions on Kaggle, a data-science hackathon platform.

Don't stop experimenting. Run algorithms to prove or disprove your hypotheses on drivers, insights and so on. Let the machine do its work to solve the problem using the information it has, then balance the results from the analysis with experience and intuition. Try new technologies, algorithms and data sources. Put existing models and insights into competition with experiments to encourage continuous improvement, learning and fine-tuning of the solution.

Don't forget culture. Integrating advanced analytics into the business often involves a radical shift in mind set, such as seeing data not as numbers but as a source of value, and holding business units responsible for the quality of their data.

Develop a flexible process and plan that allows for fast and frequent revisions to often unpredictable market changes, such as

the emergence of new data sources and new technologies.

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The business of data monetization is likely to evolve quickly. Payments providers would be well advised to begin planning their strategy without delay: first-mover advantage may determine future success. A “start small, scale fast” approach allows for flexibility, learning and course correction as the business develops. Partnerships with complementary players in payments and in the digital and start-up ecosystem could be a winning factor. How much value could be created is difficult to estimate at this early stage, but experience in some use cases and markets suggests it could amount to between 5 and 10 percent of revenues.

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