



How Financial Institutions and Fintechs Are Partnering for Inclusion: Lessons from the Frontlines

*A joint report from the Center for Financial Inclusion at Accion and the
Institute of International Finance*

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**PART ONE OF THE
MAINSTREAMING FINANCIAL
INCLUSION: BEST PRACTICES
SERIES**



CENTER for
FINANCIAL
INCLUSION

ACCION

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Foreword by

Zia Zaman, Chief Innovation Officer, MetLife Asia and CEO, LumenLab

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Foreword

The Case for Inclusion

Inclusion is not just about new products and new distribution. It's about reimagining, with the help of partners, new ways to deliver micromoments of value for the two billion financially underserved people of the world.

And the best way to unlock value for these customers is through partnerships.

The Case for Interoperability in Fintech

There has been a rapid rise in the number of fintechs willing to partner with incumbents like us, and more emphasis is now being placed on how to partner. From venture investing to corporate-startup engagement programs, the mandate has become: make the incumbent more interoperable.

How a company chooses to interact with others, its environment, the ecosystem and all the other organizations around it will increasingly shape how well that company will adapt and thrive in a dynamic world.

Generally speaking, we as large organizations need to do a better job of interacting with the external world and developing allocentricity, the ability to think from someone's else's point of view, to maximize collective good. Systematically, large companies need to improve the process of finding partners, i.e. "sensing and sourcing" and how to operationalize partnerships.

Over time, we recognized that we needed to shift employees' mindsets not only towards growth but also towards becoming more customer-led and open to innovation externally. Collab is our program to work with the fintech community on known challenges that we face within our business by enlisting internal champions to work directly with fintechs.

To get this ecosystem approach to work, you need more than just tech. Interoperability is about people. To get a startup's innovations to work within your organization—and to add value to your business—you need the tech to interoperate, of course. But you also, crucially, need people.

Interoperability is becoming one of the most critical factors in determining the survivability of any large financial services company. As Stephen O'Hearn of PwC said, "The key question is therefore no longer whether to be involved with insurtech, but how to develop a model capable of combining your strengths with the speed and agility of this innovative ecosystem."

The mindset shift required to get employees engaged and capable of working with startups is a big one, and the transformation takes time. Programs like Collab show that it can be done. My colleagues at other institutions are also undertaking similar shifts, seeking to leverage partnerships with fintechs for the sake of inclusion. I welcome this report by IIF and CFI, and applaud the efforts of both organizations in highlighting the important role financial institution-fintech partnerships play in driving inclusion.

Zia Zaman, Chief Innovation Officer, MetLife Asia and CEO, LumenLab

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Introduction

During our interview with Nina Nieuwoudt of Mastercard, we asked about the value of partnerships between mainstream financial institutions and fintechs. Nina recalled a familiar African proverb: “If you want to go fast, go on your own. If you want to go far, go together.” Her attitude is shared by many of the financial sector participants we interviewed. Banks, insurers, and payment companies don’t see fintechs as “little more than pinpricks for a banking mastodon with trillions in assets,” as *The Economist* so colorfully described the fintech-bank relationship in 2015. As we see it, these relationships are more symbiotic than combative. With partnerships, fintechs get to scale their technology and access capital to grow, while financial institutions gain assistance in their efforts to improve product offerings, increase efficiency, and lower costs (see Figure 1). As it turns out, these are all goals with special relevance to low-income customers who look for products that are more convenient, less expensive, and higher quality, and that makes financial institution-fintech partnerships a crucial strategy for meeting the financial needs of the unbanked and underbanked around the world.

A number of technologies are enabling this trend, and mobile phones are perhaps the most salient. The GSMA, a global association of mobile network operators, reports that by the end of 2016, two thirds of the global population had a mobile subscription, with that number expected to grow by 1.1 billion by 2020. A second potentially transformative development comes from the massive amounts of data resulting from mobile phone usage and the digitization of commerce, goods distribution, utility payments, etc. coupled with advanced data analysis tools. This usable data brings an unprecedented opportunity to better understand and serve clients, especially “thin-file” clients who are otherwise excluded from the financial sector. Additionally, biometric identification technology creates a path to remote account-opening and enables agent networks to bring banking to more people than brick-and-mortar branches ever could. Cloud computing and open APIs facilitate integration of systems within and between institutions, and distributed ledger technology, or blockchain, could make verifying and completing transactions faster and easier than ever before. All these technologies could significantly cut costs on financial services like credit, cross-border remittances, person-to-person transactions, and business-to-person transactions, thereby opening them up to low-income populations.

According to a 2017 report by the Financial Stability Board, *Financial Stability Implications from FinTech*, technology can help provide “easy to understand and convenient services, which tend to lower costs of adoption and lower barriers to access for customers.” The report explains, by improving access to, and convenience of, financial services for individuals and businesses, including small and medium enterprises (SMEs), technology helps promote sustainable economic growth. And while technology is expected to have a significant and highly positive impact on financial inclusion and the current financial infrastructure, there are potential risks associated with it too. According to Margaret Miller, Lead Financial Sector Economist at the World Bank in the Finance and Markets Global Practice, and Global Lead for Responsible Financial Access, some of these risks include “unfair lending practices related to

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We try to have the humility of acknowledging that we do not know a lot of things. We just have a small, tiny portion of what is outside in the crowd in those fintechs. We need to connect to those guys—we need to take all their knowledge.”

– Benoit Legrand, ING

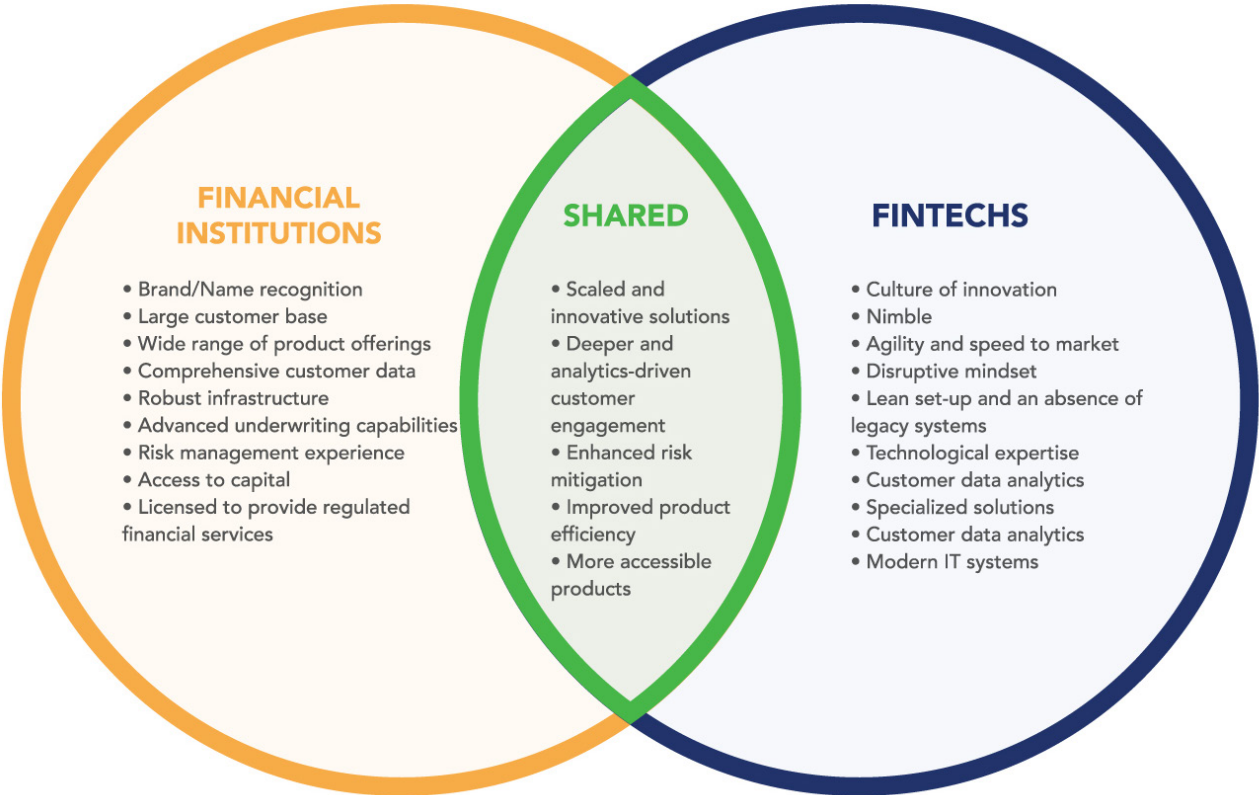
unmonitored use and analysis of big data and increased systemic vulnerabilities due to threats to cybersecurity.” Moving forward, the legal and regulatory framework will need to adapt to the fast-changing space to help minimize risks and uncertainty.

In order to explore and utilize emerging technologies, legacy financial institutions are organizing for innovation. They are developing labs to foster innovation and aggressively partnering with fintechs that offer agility and expertise in technologies that are beyond their core competencies. When asked why they partner with fintechs to pursue financial inclusion, banks, insurers, and payment companies often note that it would take three to four times the resources to develop the same technology in-house, and they appreciated the way fintechs enable them to engage with and learn from new technology in low-risk, low-cost ways.

At the same time, there are core activities that financial institutions undertake alone: they maintain relationships with their customers; they protect customer and transaction data; and they continue to use traditional ways of assessing risk. But they are also, through partnerships, learning new ways to leverage data, evaluate risk, and conduct relationships with customers. We are excited about the ways these insights will enable new products and services for underserved customer segments.

FIGURE 1
STRENGTHS OF FINANCIAL INSTITUTIONS AND FINTECHS

Partnerships between financial institutions and fintechs are mutually beneficial. Through partnerships, both parties can scale up business to reach a larger customer base, bolster their competitive position, and improve product efficiency.



A great deal has been written about financial institutions that partner with financial technology companies. Consulting firms like McKinsey and PwC, mainstream media outlets like *The Economist* and *The New York Times*, and even bloggers like Chris Skinner and Jessica Ellerm have been talking about this trend for the last decade. At first, experts predicted that fintechs were going to usurp mainstream finance, then some softened that to mere disruption. The increasingly dominant view, however, is that while fintechs will propel advances in the finance industry, they are more likely to become collaborators with astute incumbents rather than direct competitors.

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Nobody rises to the top of a banking organization being a disruptive innovator. Partnering is a way to build muscle in innovation and transformation. In which you can learn at minimal cost and minimum risk. But you don't want to get into a partnership with your core banking technology.”

– Ray L. Ruga, CVOX Group

We are particularly concerned in this report with the question of whether financial institution-fintech partnerships will increase the capacity—and interest—of financial service providers to cater to low-income customers. As part of the financial inclusion movement, many partnerships have found their origins in market environments where “necessity is the mother of invention,” that is, in cases where innovation is essential to lower the cost of serving small value accounts or reaching people in remote areas. In this context, innovation—often fueled by partnerships—emerges to address the challenge of poor infrastructure and lower profitability inherent in this market segment. And innovations created for such purposes may end up transforming services for other segments, as well.

What is at stake for financial institutions is their continued centrality in the financial lives of customers. With new players like Ant Financial and WeBank growing rapidly and others like Amazon and Facebook entering their toes into financial services, incumbents are feeling the pressure to innovate and protect their market share. Strategic partnerships with fintechs can help legacy financial institutions innovate quickly and prepare for new market competitors by establishing a superior digital experience with more specialized, higher quality, and lower cost services.

This report examines 14 partnerships between traditional financial companies and fintechs that are addressing financial inclusion challenges and expanding access to the formal financial economy for underserved segments, particularly in emerging markets (see Figure 2 and the Appendix for a full list of these partnerships). It incorporates insights from interviews with 32 people from 25 institutions at the frontlines of this trend and highlights partnerships focused on financial inclusion that we think exemplify good practice. As such, the partnerships we highlight in this report are “positive deviants.” The insights in the report build on best-case-scenarios for partnerships for financial inclusion. The partnerships we discuss are not representative of all such partnerships but rather aspirational. Through this exercise, we hope that institutions develop a better sense for what is possible. The primary audiences for this report are those in mainstream financial institutions who want to know how their contemporaries are engaging with innovators to pursue financial inclusion, and those in fintech companies who want to understand the way banks are likely to approach them. In addition, venture capital firms, multilaterals, and industry associations have much to learn from this research about what drives banks to partner, what

gets in the way, and what comes next. The report finds that contrary to a popular narrative of competition between the legacy providers and newcomers in the market, financial institutions view fintechs as great partners for innovation—and we expect that we will see many more partnerships as institutions learn from one another’s success.

FIGURE 2
PARTNERSHIPS BETWEEN FINANCIAL INSTITUTIONS AND FINTECHS IN THIS STUDY

This map represents the financial institution and fintech partnerships highlighted in this report, which span 26 institutions in 14 countries. Viable partnerships for financial inclusion are not limited by country or even region—they often cross borders, time zones, and language.



One encouraging and somewhat unexpected finding from our research is that the partnerships between financial institutions and fintechs described here represent a slow but pervasive industry shift toward customer-centricity. During one of our interviews, Benoit Legrand, Global Head of Fintech for ING, pointed to the historical assumption banks maintained that customers would come if the financial institution built good products. Now, Legrand says, “Banks need to reinvent themselves to be platforms where customers are empowered again. Banks have to learn to move and rotate around customers.”

The report begins with a series of cross-cutting insights that we observed in many different partnerships, and that are relevant across technologies, institution types, and financial inclusion challenges. Mainstream financial institutions may find these observations useful as they craft their own strategies for leveraging fintechs for financial inclusion.

The remainder of the paper describes the partnerships in detail, organized by the challenges the partnerships were forged to address:

- Gaining access to new market segments
- Creating new offerings for existing customers
- Data collection, use, and management
- Deepening customer engagement and product usage

The descriptions of these challenges and corresponding partnerships capture the creativity, dedication, and foresight that financial institutions and fintechs bring to bear as they address the problem of financial exclusion. This section illustrates differences among partnerships and offers insight into which kinds of partnerships are “easiest” to maintain, which get bogged down in regulatory processes, and which are most successful at achieving financial inclusion in emerging markets.

The Road to Partnership

Across financial institution and fintech partnerships, certain characteristics are relevant across technologies, institution types, and financial inclusion challenges. As a baseline, we will shed light on the surprisingly diverse ways partners find one another, the challenges associated with moving from idea to implementation, the common ways that financial institutions ensure stability of partnerships, and the use of partnerships as key elements in institutions' financial inclusion strategies. We will be using the partnership between BBVA Bancomer, a Spanish bank that operates through out Latin America, and Destacame, a Chilean data analytics company, as a model, highlighting specific ways that this partnership was formed and executed (see Case Study 1). We also draw on other examples, and a full description of each partnership can be found in the section on cross-cutting challenges (beginning on page 21).

Case Study 1: BBVA Bancomer and Destacame

Destacame provides an alternative credit-scoring platform which builds a credit score based on a customer's bill payment history. BBVA Bancomer partnered with Destacame with hopes of expanding credit to thin-file customers, especially those making less than US\$100 per month. With traditional risk assessment models, BBVA Bancomer was only approving 10 percent of customers in this segment, but saw a great opportunity to expand. Destacame is increasing BBVA Bancomer's ability to lend to thin-file customers and helping them charge appropriately for those loans.

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The things that are core capabilities for the bank you want to develop or acquire. The things that complement your offerings but are not core you can gain through a partnership.”

– Carlos Lopez-Moctezuma,
BBVA

To follow the IT procedures of the bank, Destacame's platform is housed on its own website, separate from BBVA Bancomer. Customers first go to Destacame's platform and provide access to certain information, such as utility bill payment data. Destacame then gives the customer a score which the customer can choose to submit to BBVA Bancomer. The bank handles the loan process from there, first deciding whether to approve based on its own risk appetite, and then managing the disbursement and collection of the loan.

Identifying Prospective Partnerships

Even before they identify partners, how mainstream financial institutions search for opportunities and organize their workforce for innovation make a difference in how easily and how well they partner. Fintechs create new possibilities for financial institutions, and partnerships with them are often experimental. While routine procurement processes may be applicable in cases where the problem and solution are well-defined, in other instances, the origins of a partnership are more open-ended. As an example of the use of standard procurement processes, Société Générale wanted to compete with mobile money providers in West Africa. It decided it needed an interoperable platform that would work on feature phones—the dominant handset type in the region. It interviewed a handful of fintechs and ultimately selected TagPay, a French software company that could help translate their banking systems onto a limited mobile menu.

Several partnerships we observed began with an open search that quickly narrowed to one provider because of the lack of fintechs, specialized fit, or prior experience. Ujjivan, a small finance bank in India, typically seeks vendors through a standard RFP sourcing process. When it came to looking for a digital field application, however, they needed an “end-to-end” technology that provided additional data analysis, instant customer due diligence and verification, and nudges for staff to follow up with particular customers. Artoo was the only company known to Ujjivan offering all these features in one place. Similarly, MetLife found the virtual reality (VR) company Imagine, among a limited pool of providers in the market, with whom they co-created an avatar-based VR experience, as a unique solution to its problem of overcrowded branches in India. Kopo Kopo, a fintech startup already working with Diamond Trust Bank in East Africa, was in the right place at the right time when the bank wanted to begin offering an interoperable QR code payment system for merchants. The system would allow merchants to accept mobile money payments from customers from multiple mobile wallets, with a simple snap of the QR code. While Kopo Kopo’s existing technology was slightly different than the need, it proposed to adapt its product to fit Diamond Trust’s specifications. Diamond Trust Bank agreed. Stanbic Bank in Ghana was working with DreamOval on another initiative, and when they needed another technology provider, it was simpler to work with DreamOval than to do a full RFP process and source other fintechs.

Several partnerships we saw arose in a more opportunistic manner, as financial institutions learned of the possibilities created by a new technology and decided to explore it. For example, MicroBank, a subsidiary of CaixaBank in Spain, connected with U.S.-based fintech Entrepreneurial Finance Lab (EFL) in this manner. A fan of behavioral science, Roman Weissmann Bermann, the bank’s risk director, was intrigued by psychometric testing. He decided to pursue a partnership with EFL to expand MicroBank’s lending portfolio to thin-file customers. In India, ICICI Bank’s Head of Innovation, Raj Chowdhury, read *The Age of Cryptocurrency: How Bitcoin and the Blockchain Are Challenging the Global Economic Order*, which highlighted blockchain company Stellar. Chowdhury asked Stellar if they would be interested in partnering with ICICI Bank, and a new digital wallet was born.

Because the possibilities fintechs create cannot always be anticipated or envisioned, and to help manage what can seem like a bewildering array of small companies, some financial institutions have decided to vet multiple companies through labs and contests in the hopes that a prospective partner will emerge. For example, the Spanish bank BBVA Bancomer is working with Destacame, a Chilean fintech, to extend credit access to thin-file customers in Latin America. The partnership began when Destacame won an annual BBVA startup competition in 2015. Contests can be very challenging for fintechs, however. Makoto Shibata of Mitsubishi UFJ reported that out of 200 fintechs participating in its competition, only three partnerships with the financial institution emerged. This ratio seemed consistent with what we heard in other conversations.

Organizing for Innovation

Moving from identifying a potential partnership opportunity to implementing a successful partnership depends in part on how well organized for innovation the financial institution is, starting with whether the person sourcing the partnership has the internal influence or authority to bring along the areas of the organization that need to be on board (see Figure 3). Often to the frustration of prospective partners, this process can be surprisingly lengthy and prone to failure. One interviewee held that prospective partnerships only became successful partnerships 10% of the time. Another estimated an even lower success rate. Today, fintechs are willing to be patient

through this process because of the scale and exposure that the new partnership can bring. Carlos Lopez-Moctezuma, who leads fintech partnerships for BBVA, says, "Size does matter. If you are a big bank and you want to work with the fintech ecosystem, it's easier. Everybody wants to work with you." In the future, however, as they learn more about the time it takes to move from idea to partnership, fintechs might become more interested in working with some institutions over others.

FIGURE 3

ORGANIZING FOR INNOVATION

Financial institutions recognize organizational barriers to agility and exploration and are therefore strategically organizing for innovation in a variety of ways:



A lengthy approval process can be a significant barrier to partnerships, even in institutions that are well-organized for innovation. Lopez-Moctezuma recommends pursuing a top-down buy-in process at the start of the project so that the mandate is established to pursue the partnership, and then switching to a bottom-up approach to implement the solution, e.g., integration,

running, and testing the product or service. For financial inclusion, which yields small margins and therefore requires scale, building innovation into institutional operations and putting expertise in key positions is especially critical. BBVA Bancomer’s partnership with Destacame involves multiple business units—including the consumer loans, IT, and risk departments—in addition to Lopez-Moctezuma’s innovations team. To move the partnership through the approval process, he needed buy-in from all of them. Building the partnership with Destacame took approximately one year. Based on what he has learned through this experience, as well as partnership formation with other companies, Lopez-Moctezuma is hoping to simplify the approval process to make future timelines considerably shorter.

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Innovation within a bank is fairly difficult; we have a lot of regulation and require a lot of approvals. Innovation requires trial and error. Collaborating with fintechs is a great model for banks—that way they can reduce their cycle time and reduce the risk of innovation. Startups are more hungry for innovation. So it’s a great model for banks to collaborate with fintechs.”

– Raj Chowdhury, ICICI Bank

The need for multiple approvals from business units and strategy teams is a common theme. In Société Générale’s approval process, the West African division required approval from national business units, the headquarters in Paris, and the marketing team (the marketing team weighed in because of branding and customer segmentation considerations). ING addresses this challenge by creating ad-hoc and flexible approval processes for partnerships in which a wider array of people is empowered to approve partnerships at the pilot phase. When the process moves from pilot to roll-out, the institution employs a more rigorous process.

Fintechs feel the pain when financial institutions are not organized for innovation. While our sample did not include failed partnerships, many

examples were cited during our discussions as examples of how arduous collaboration can be. According to Keith Jones of incubator Sw7, GetBuild has pursued a partnership with a major bank in Africa for more than two years. GetBuild, which offers a simple website-building platform for SMEs, started conversations in early 2015 with the bank’s head of digital banking. The bank was considering including access to GetBuild’s platform to its SME clients. After 15 months, GetBuild finally received a letter from the bank saying they should expect a contract soon. But a few months later, their contact at the bank left his position, and as of early 2017, GetBuild still does not have a contract. For companies relying on a partnership with a financial institution to maintain or expand operations, such delays and false starts can be devastating. Additionally, if the goal of collaborating is to propel the financial institution into a new area to gain a competitive advantage, then time to market is crucial. And fintechs cannot afford a long timeline. “We work with companies that move much faster than we do,” acknowledges Javier Herraiz of Santander. (See Figure 4 for the time it took to establish select partnerships in this report, including Santander’s partnership with EFL).

This example underscores that an essential element of organizing for innovation is to designate people with authority to manage sourcing, due diligence, pilots, and implementation. Large mainstream financial institutions are creating “Chief Innovation Officer” and “Head of Innovation” positions, with the authority, staff and budget to pursue partnerships. Lopez-Moctezuma is BBVA’s

Head of Innovation, Entrepreneurship, and Financial Inclusion, and has a specific mandate to pursue financial inclusion through innovation globally. Similarly, Turkiye Is Bankasi's Head of Innovation is given the authority to scout for innovation and then serves as a "matchmaker" with relevant teams.

Traditional bankers, according to Jared Shu of China-based WeBank, are risk-averse. Support for innovation from leadership is necessary to counteract this tendency, as change starts at the top and permeates all the way down the chain of command. It helps when the most senior executives at the institution have an innovation or fintech background. Bancolombia's President, Juan Carlos Mora Uribe, previously served as the banking group's head of innovation. BBVA's Group Executive Chairman, Francisco González, was a programmer at one point. Both of these are firms whose leaders are helping to change the business culture within their organizations so that the organizations will embrace new ways of thinking and operating.

ING, for example, requires partnerships with fintechs to have a "sponsor" at the top two levels of the institution to ensure that the partnership receives the attention it needs to be fully implemented. EFL always tries to create "internal champions" who will move their partnership through the due diligence process for a better likelihood of success. When Stanbic Bank of Ghana was pursuing its partnership with DreamOval, it had the support of its in-country CEO, but spent months gaining the backing of its global headquarters based in South Africa.

Mastercard Labs emphasizes that without a separately funded innovation arm, it is easy for every dollar that comes into a financial institution to be funneled toward operations rather than innovation. In the same spirit, Mitsubishi UFJ created a digital innovation division with 50 full-time and 20 contracted staff.

In light of these complexities, many organizations are considering how to speed up the process of collaborating with fintechs, and in some cases, this means insulating the partnership from other parts of the institution. When asked if he would do anything differently from the way he pursued a partnership with DreamOval, Patrick Quantson of Stanbic Bank in Ghana said that he would have insulated the partnership from the wider organization—including core processes and the board of governors. If he were to design an ideal environment in which to pursue a partnership, he would have a clear mandate, a defined budget, a limited set of approvals, and a clear timeframe within which to achieve set targets.

Beyond insulating the new partnership, financial institutions are developing other solutions to lengthy collaboration timelines. ING creates squads of cross-departmental staff who move partnerships through a limited—rather than full—due diligence process to get a product to the pilot stage quickly. Only after the pilot do they conduct a full due diligence. MetLife's LumenLab, an innovation lab in Singapore buys into the Silicon Valley adage: test and fail quickly. The team follows a step-by-step approach with its partner Imagine, for example, testing whether a customer would be interested in talking with a virtual customer service representative in lieu of waiting in line. Then the team moves to the next question. With this method, they create buy-in and solve problems as they emerge rather than having to solve them all at once. In India, ICICI Bank takes a more direct approach: it increases incentives and sets timing targets. To continue its partnership with Stellar, it set an internal target of producing results within 90 days.

Working Together

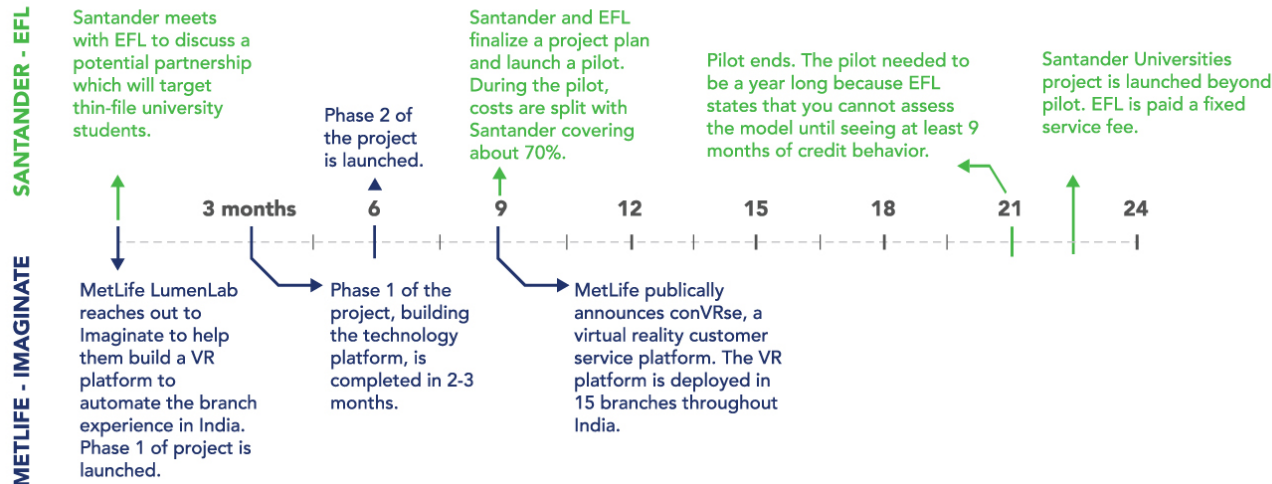
Once the partnership is approved and up-and-running, the complex process of integration begins. Even for financial institutions that are well-organized to innovate and partner, this process requires significant investment from both sides. Ben Knelman, Co-founder and CEO of Juntos, a fintech startup that automates SMS conversations with customers (and also partners with BBVA Bancomer as discussed in Case Study 12), knows the process can be lengthy and frustrating—explaining the technology to multiple teams at the financial institution, setting up the integration systems on Juntos’ side, etc. The time spent here is costly to the fintech, but it must occur before the fintech takes in any revenue. There are, however, common themes among successful partnerships.

In all partnerships we studied, interviewees emphasized just how closely institutions worked together. One interviewee described collaboration as “co-creation.” Another explained that partnering looks like working daily side-by-side for months. A third described how fintech employees move in to the bank’s headquarters during multiple two-week “sprints” so that the two companies could pursue rapid technology development together with maximum shared understanding.

We have already noted that the time involved in partner selection and approval is often quite long. Lengthy processes continue during the project development stage as well, and in nearly all the cases we identified, institutions initially underestimated the time required by a considerable amount. For BBVA Bancomer and Destacame, the process of partnership took nearly a year from an initial conversation to the beginning of the pilot, with much of that time taken after the contract was signed. Delays at this stage can include unanticipated regulatory challenges, arduous integration procedures, slow board approval processes, and other surprises. Every institution we talked with was actively trying to use lessons learned from forming these partnerships to reduce time to partnership when they moved forward with the next one. However, as Lopez-Moctezuma points out, some pilots must by definition extend over a long period of time (see Figure 4 for two examples). Partnerships involving lending must include a pilot that takes into account at least one standard loan cycle, for example.

FIGURE 4
SELECT PARTNERSHIP TIMELINES

The timeline of creating a partnership varies in length. Here are two examples.



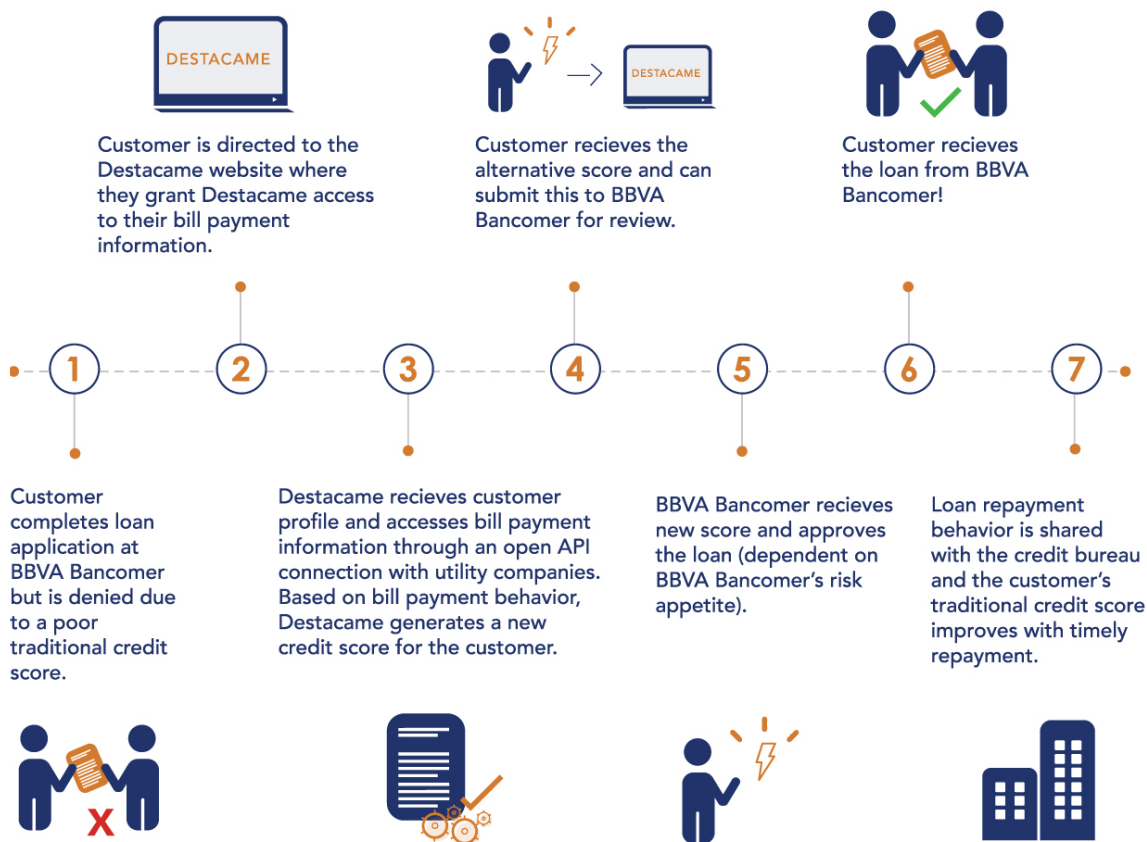
Rodrigo Sanabria of EFL, which partners with many financial institutions around the world, holds, “Time to partnership depends on the size of the bank—that’s my experience. The more people we have to interact with inside the bank, the more people it takes from our side.”

Systems Integration. One of the biggest barriers in the process of building a partnership is integrating systems. In addition to technical issues, there are often regulatory issues around data sharing, as well as concerns over data ownership and use. Instead of actually deeply integrating systems, project managers we talked with found creative work-arounds. In its partnership with BBVA Bancomer, Destacame operates a completely separate system from the bank (see Figure 5 below). Destacame shares alternate credit scores with the bank, but cannot access any product usage information from BBVA Bancomer clients. Instead, Destacame uses the credit bureau to track loan performance for customers it has scored.

FIGURE 5

BBVA BANCOMER AND DESTACAME

A look at how Destacame’s alternative credit scoring is enabling BBVA Bancomer to reach underserved customers.



MicroBank, which was not permitted to integrate EFL’s scoring mechanism into its parent bank’s systems (CaixaBank), set up a parallel system to conduct psychometric evaluations. Similarly, instead of integrating Juntos’ client communication mechanisms into BBVA Bancomer’s back-end systems, Juntos created a way to receive client transaction data from BBVA Bancomer and report back to the bank on client responses to its messages. Ujjivan and Artoo experienced system

integration challenges because Artoo's system was initially hosted on Amazon's cloud computing platform, which was housed on servers outside India and therefore did not comply with India's regulations. In response, Artoo migrated its system to Microsoft, with servers located in India. Innoventures, Santander's innovation fund, conducts all pilots outside of core processes as a standard practice, and pursues integration only if absolutely necessary as part of a partnership. The only example of even limited systems integration in our sample was through specialized or open APIs. In these types of integrations, financial institutions grant very limited access to fintech on the back-end, allowing them to view certain information, but not own or transfer it.

Open APIs

Open APIs, or application programming interfaces, have the potential to significantly reduce the time it takes for financial institutions to work with external institutions. An open API provides a secure "connection" to the financial institution, allowing fintechs to access customer data in a controlled way. Through an API (and with customer permission), the financial institution grants access to its customer data to a third party (usually, but not often, an app or developer), but financial institutions offering open APIs limit how "deep" they allow third parties into their system. The benefits of integrating via open APIs are compelling for all parties involved—customers, third party fintechs and financial institutions. Customers of financial institutions can receive a more personalized experience as they interact with their provider's financial management tools and third party apps. The third party fintech gets the essential ingredients it needs to engage with the customers of the financial institution. The financial institution gets to partner—in some cases with hundreds of third parties—using an approved process that keeps institutional expenses low.

BBVA for example offers eight different APIs for companies wishing to "plug into" different slices of their customer data. These include APIs for third party businesses to better understand customer transactions through the BBVA network, APIs for third party payment companies to build creative payments channels for BBVA customers, card-based APIs that offer ecommerce insights on consumer spending, and more. As an analog to pilot testing, BBVA offers free "sandboxes" where API-users can play with dummy data. The third parties use this testing ground to decide whether they want to pay for access to the full API, and BBVA uses this testing ground to ensure that the third party can be trusted.

Open APIs bringing some of the benefits of partnerships to scale. Some institutions that offer APIs claim to have hundreds of outside institutions innovating technology solutions for their customers.

Pilot Testing: Pilots are standard practice in partnerships, and they require significant time and resources from both partners. In almost all cases in our interview sample, the cost of pilots was shared between the fintech and financial institution. In a number of cases, the fintech did not expect to achieve profitability until well after the start of a formal, fully-scaled partnership. BBVA Bancomer's partnership with Destacame began with a six-week pilot. Lopez-Moctezuma explains the benefits for both parties when he says, "They are validating their model and we are testing a new tool." For fintechs, the cost of pilots is a part of their investment in proving that their technology will work for a financial institution. For the financial institution, the pilot is a way

to assess demand for the new technology without the risk of developing it in-house. For neither party is there a guarantee of moving from pilot to full partnership.

Ongoing Partnership Management

As partnerships progress, financial institutions create agreements to ensure that their partners will continue to thrive and prioritize the needs of the institution (see Figure 6 for more details). To ensure a stable partnership, financial institutions offer favorable contact terms, invest in, or promise future benefits to their fintech partners.

Favorable Contract Terms: One risk for financial institutions partnering with fintechs is to ensure that the partner continues to survive. Because of the frequently long timelines needed to operationalize partnerships, fintechs working with financial institutions need enough capital to fund operating costs for years. One approach financial institutions employ is to offer fintechs favorable terms in the contracting process. These terms may stipulate that the financial institution will cover pilot costs or that they will pay the fintech during the implementation phase and before services are in use. Rodrigo Sanabria advises, “Don’t squeeze every penny out of the fintechs—most fintechs don’t have the financial backing to support this.” Similarly, Lopez Moctezuma says, “We have to be flexible so the fintech is comfortable working with us, not feeling like we are killing their business. We need to be conscious about the limitations they have and the cash flow they need to survive.” The mismatch between the size, capacity, and financial flexibility of the two entities is important for financial institutions to keep in mind as they negotiate the terms of the partnership.

Investment: For some financial institutions, ensuring the stability of partnerships means making strategic investments. After entering into a major partnership with MicroEnsure, a firm creating innovative solutions to expanding insurance coverage in emerging markets, AXA invested in a 46% ownership share in the company. “We wanted to be able to have a seat at the board of MicroEnsure and align strategic interests between the two companies, having a strong societal impact but also having a profit-driven approach to this business. Being an investor as well as a partner is a way to be able to align priorities,” explained Quentin Gisserot of AXA. Not all investments are as substantial. Société Générale made an 8% investment in their partner TagPay, which earned them a seat on the board. Mattieu Vacarie, a bank official, explained the investment: “To make sure that we were more than a partner—that all of their resources would be made available to us. If you have a seat on the board you can make sure that you can control what is being done by the partner.” According to Patrick Quantson of Stanbic Bank Ghana, which is exploring an investment in DreamOval, “What fintechs need most is for somebody to fund their runways so they can innovate. We, by wanting to buy a stake, are proving that we are committed to that long-term investment in innovation.” Santander makes an equity investment in many of their partners, as they did with PayKey, a fintech payment startup based in Israel, to limit risk.

Future Benefits: Financial institutions also offer future benefits. One way financial institutions do this, as John Sheldon of Mastercard Labs describes, is to offer an option or warrant—a right to buy a percent of the company at a given time and at a given price. This arrangement allows the financial institution to participate in the fintech’s success, which is in part dependent on the success of the partnership with the financial institution. It also provides an incentive for the fintech, which can anticipate future funding if it is successful.

Future benefits also include partnerships with other institutions in the same group or network. DemystData describes its partnership with a large bank in the Philippines as including a complicated due diligence process. After partnering, however, the company was able to quickly form partnerships with other subsidiaries of the multinational parent company. Standard Bank plans to expand Slydepay to other Sub-Saharan African markets once its national bank in Ghana, Stanbic Bank, demonstrates the business case.

FIGURE 6

SECURING STABLE PARTNERSHIPS

Financial institutions are using a variety of strategies to ensure stable partnerships with fintechs.



Investing in a fintech partner often allows a financial institution to obtain a seat on the board and greater strategic control.



Offering favorable terms to fintechs in the contracting process.



Including an option or warrant into an investment agreement: This would provide a financial institution with the option to benefit from a fintech's success, following an initial partnership. It also provides incentive for the fintech, which can anticipate future revenue if it is successful.



Connecting fintech partners to other markets of operation to expand growth.

Future Trajectory

For many of the partnerships surveyed, the future remains unclear. All the financial institution representatives we talked with said they would continue their partnership as long as it is working. This may, of course, simply be the 'polite' answer, because after demonstrating the scalability, usefulness, and demand for the technology, partnerships could follow very different trajectories. Some will continue as they are now. In other cases, the financial institution might acquire the technology. In still other cases, the financial institution indicated an interest in learning about the technology in order to start internal development on their own (see Figure 7 for an exploration of possible directions a partnership could take).

In the short-term, successful partnerships are maturing into something more useful for both parties. Stanbic Bank Ghana describes its partnership with DreamOval as having reached a "marriage-like stage," as it has evolved from DreamOval's initial provision of transaction notifications. Now, because of changing needs and technology possibilities, DreamOval is providing the engine that powers many of Stanbic Bank Ghana's digital innovations. DreamOval has been proactive around Stanbic Bank Ghana's present and future needs. The close-knit relationship gives both

entities confidence in the stability of the partnership. In the example of BBVA Bancomer and Destacame, the bank is expanding its credit portfolio to good customers who would have otherwise been excluded, while Destacame is gaining access to customers that are directed to them by the bank. These customers offer Destacame the opportunity to further refine their risk modeling services.

One prominent question is whether a fintech will seek multiple financial institution partners or will devote itself to deepening a partnership with one institution. Société Générale does not expect, for example, that TagPay will remain exclusively their partner. Continued support for the technology and continued return on the bank's financial investment in the company necessitate that TagPay take on more partners—even in the same market. Many of the fintechs described here including Demyst, Juntos, and Destacame, seek partnerships with multiple financial institutions. This kind of arrangement may not always be comfortable for banks, particularly if competitors are involved. For fintech companies employing alternative credit scoring, their scoring models are naturally being refined and improved by customer data. To use such data to indirectly improve a competitor's underwriting effectiveness may not be acceptable. We did not see, however, any push for exclusivity from the financial institutions.

Financial institutions are actively learning from their partnerships and developing similar technology in-house. This may not always be good news for fintechs, but it could be great news for low-income customers who want more and better financial services. While financial institutions may be unwilling to invest in the development of new, unproven technology, they may be able to justify in-house development of technology once it has been tested. Nieuwoudt points out that after working with a fintech to develop a biometrically-linked card, Mastercard was able to develop the technology in-house and apply it to other markets. Alternative credit scoring is another area where financial institutions are eager to learn, as risk modeling is a natural part of their core activities.

Fintechs also learn from their partnerships. DemystData, for example, began as a company that provided bespoke solution configurations, including enhanced credit scoring, by leveraging various external data sources and automating decision-making. Its core services have shifted to focus on driving data access at large to help financial institutions serve more customers. Today, DemystData allows its customers to test and integrate new data sources more rapidly, navigating through the intricate data landscape in a compliant way, and transforming unstructured data into something that is easily usable to a financial institution in real-time. While financial institutions are typically well equipped with data science teams to improve their products internally, they will likely need help cleaning up and managing data amidst an explosion of niche providers.

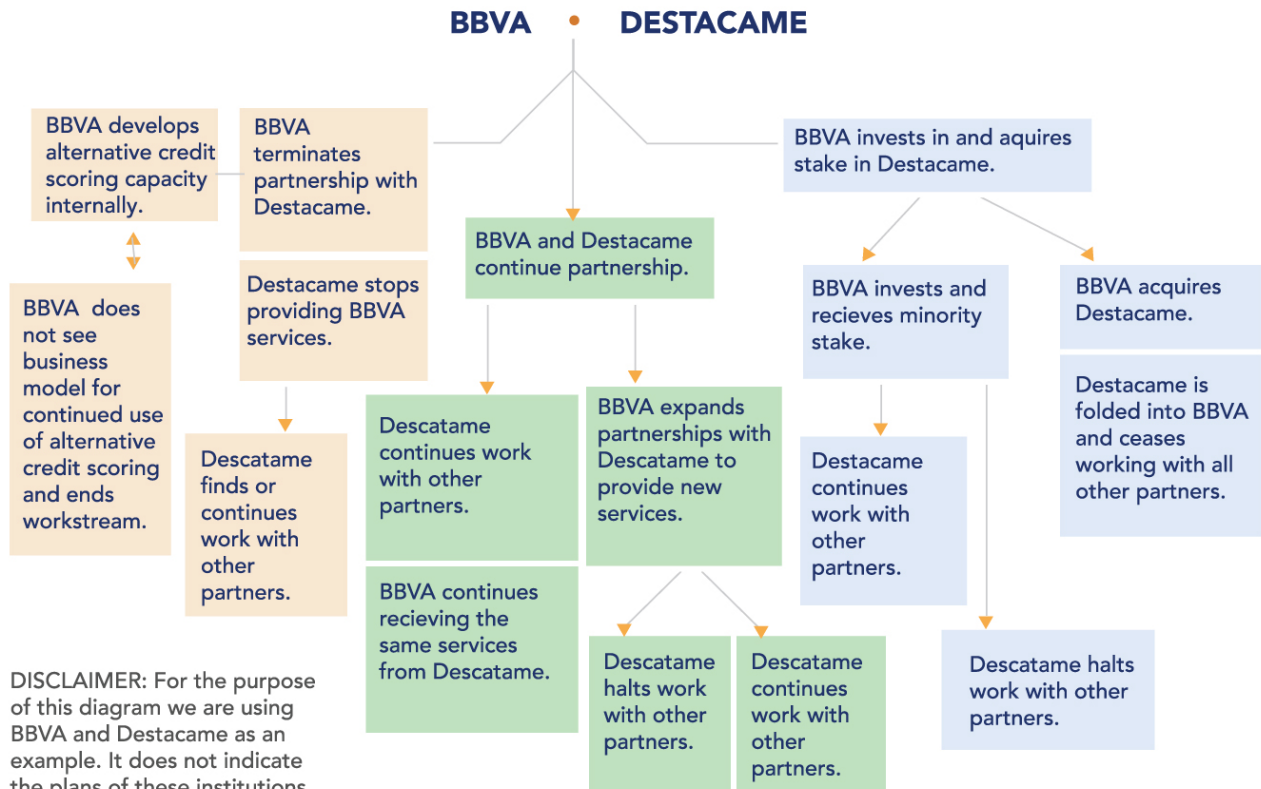
Alternatively, financial institutions may convert partnerships into acquisitions folded into core processes. Such is the intent of Allianz, according to Solmaz Altin, the firm's Chief Digital Officer. For example, Allianz is currently pursuing a partnership with drone company Fair Fleet to have a low-cost way to assess claims from the air, which would make settlement after car accidents, natural disasters, and other challenges much less costly. If the partnership is successful, Allianz may try to integrate this technology into its core business. At least two financial institutions we talked with were actively pursuing acquisition of their fintech partner.

Looking at the bigger picture, financial institutions are likely to continue to pursue and incorporate innovation through partnerships as a driver for connecting with the low-income market segment. Our interview pool included executives in innovation positions in large financial institutions who view companies such as Amazon, Facebook, and Tencent—firms that provide intuitive online platforms, excel in utilizing customer data, and are well capitalized—as their primary future competitors. If these firms expand their role in financial services, as anticipated, traditional

FIGURE 7

THE MANY PATHS OF A PARTNERSHIP

Many of the partnerships we surveyed were in their early years- here we take a look at the different paths these partnerships may take.



DISCLAIMER: For the purpose of this diagram we are using BBVA and Destacame as an example. It does not indicate the plans of these institutions but rather represents the different ways forward.

financial institutions will have to innovate significantly in order to compete. If not, they will likely to fade into the backend, processing financial transactions, rather than maintaining direct customer relationships. Jared Shu of WeBank describes this phenomenon in China, where the customer-facing entity is not usually a traditional incumbent. This is also true of the Commercial Bank of Africa’s partnership with Safaricom in Kenya for M-Pesa. The financial institution’s role in these transactions is invisible to customers. Benoit Legrand of ING envisions a different future in which financial institutions innovate to meet customer needs. Partnering with fintechs is one way mainstream financial institutions can stay relevant to the customer.

Partnerships That Meet Financial Inclusion Challenges

We identified four key financial inclusion challenges in emerging markets that mainstream financial institutions are working to address through partnerships with fintechs:

- Gaining access to new market segments
- Creating new offerings for existing customers
- Data collection, use, and management
- Deepening customer engagement and product usage

In this section, we describe each of these challenges with examples of partnerships between financial institutions and fintechs. Many of the challenges, of course, are interrelated, and some partnerships address more than one challenge.

Gaining Access to New Market Segments

Some fintechs offer financial institutions ways to reach and acquire unbanked and underbanked segments of the population. Onboarding lower income customers via traditional means has been a mainstream finance challenge for decades. Building physical branches in remote areas, for a dispersed population with low-value accounts, for instance, is not viable in most circumstances.

Digital technologies, however, make it more cost-effective to acquire and serve low-income populations, overcoming physical barriers and long distances. Digital tools have provided lower distribution and operational costs, greater scale, faster and more convenient service, more affordable and accessible products for low-income individuals, and ultimately a larger customer base for financial institutions.

Within the interview pool, we encountered numerous partnerships between financial institutions and fintechs that were offering technology to allow financial institutions to reach new customer segments profitably. For example, Mastercard, Grindrod Bank, and Net1, a fintech, collaborated to change the way social grants are distributed to a largely unbanked population in South Africa. Several thousand kilometers north in West Africa, Société Générale is collaborating with TagPay to build a new digital banking brand called YUP. The partnership in India between Ujjivan and Artoo also involves facilitating access to low-income customers. Global insurance giant AXA is collaborating with MicroEnsure to extend insurance coverage to low-income customer segments across several emerging markets in Africa and Asia.

In contrast to partnerships involving existing market segments, where financial institutions seek to maintain the customer relationship, in these partnerships we found financial institutions more willing to let their fintech partners or an entirely new brand own the relationship. Société Générale aimed to build a brand in YUP that was far removed from its larger banking institutions in West Africa. In East Africa, the digital wallet created in the partnership between Diamond Trust Bank and Kopo Kopo is offered under a new brand, PayEasy. Mastercard and Grindrod Bank entrusted all customer registration and onboarding to Net1, the fintech partner that traveled around South Africa creating biometric identification profiles for all recipients of social benefits and creating and distributing Mastercard debit cards. The financial institutions we spoke with were willing to forfeit some control over the customer relationship in order to reach and acquire new customers. This trade-off contrasts with the other partnerships we observed, in which the financial institution asserted clear ownership.

Financial institutions undertaking partnerships to reach new customer segments may struggle to integrate an entirely new type of customer into their systems. Mainstream institutions often have systems built for a low-volume of high-value transactions. Preparation for high-volume, low-value customer segments often requires either great internal change or the help of an outside partner, and as AXA's Quentin Gisserot noted, the low-cost platform required to reach new segments in emerging markets was not available in-house. For this reason, many partnerships we surveyed in this category focused on providing a system suited for these new customers. MicroEnsure's IT system offered AXA the ability to process premiums of US\$1 a month. TagPay provided Société Générale with the platform to profitably conduct digital transactions with low-income customers. Perhaps due to the integral role their fintech partners play in reaching and serving new customer segments, both Société Générale and AXA took a stake in their partner companies. By investing, they hope to increase their market share among emerging consumers and to ensure stability so that they do not lose the systems on which they rely.

Case Study 2: AXA and MicroEnsure

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Maybe we could have built a very low-cost insurance platform, but until now this customer segment was not really part of AXA's DNA. Our core expertise is not in low- to middle-income segments in emerging markets. We learn a lot from MicroEnsure.”
– Quentin Gisserot, AXA

AXA is partnering with MicroEnsure to extend insurance to new customer segments in emerging markets. Prior to the partnership, AXA's reach in emerging markets extended only to the wealthiest 5 - 10% of customers. A focus on more expensive products, traditional channels such as bancassurance, and trust issues among customers who had never purchased insurance were the limiting factors..MicroEnsure, a specialist provider of insurance offered a path for AXA to move down-market through customer insights and an IT platform designed to serve large volumes at lower costs.

AXA's own IT systems are generally built for higher-ticket values; processing a new policy can, for instance, take a few dollars. For the dollar-per-month premiums associated with the low-end market, AXA is now using the MicroEnsure Global Products Platform to process claims for lower cost plans. This platform handles the entire value chain for these customers rather than breaking up different parts of the process, as sometimes happens with higher cost plans. This all-in-one feature of MicroEnsure's system, as well as the simplicity of the products offered, allows for more efficient and less costly administration. MicroEnsure also provides a centralized customer relationship management (CRM) system and customer relations capacity via call centers. When moving into a new market, AXA and MicroEnsure often form a partnership with a telecommunications company, using mobile as a distribution channel. AXA says that its partnership with MicroEnsure has allowed the company to form better partnerships with mobile network operators (MNOs) because MicroEnsure also brings experience integrating into telecommunications systems.The partnership began in 2014 when AXA took a 10% stake in MicroEnsure. In early 2016, AXA increased its stake to 46%. This investment gave AXA a more strategic role in MicroEnsure, ensuring the stability of the part-

nership. The partnership has lowered operational costs and enabled AXA to extend coverage to 10 million low-income customers across Africa and Asia. Meanwhile, MicroEnsure continues to build strong partnerships with a variety of other stakeholders, driving forward inclusive insurance with MNOs and other insurance companies.

Case Study 3: Diamond Trust Bank and Kopo Kopo

Diamond Trust Bank (DTB) is partnering with Kopo Kopo in Kenya and Uganda to serve retail merchants. Kopo Kopo equips retail merchants in East Africa to accept digital payments and offers them small loans. In Uganda, Kopo Kopo and Diamond Trust Bank teamed to create PayEasy, a mobile wallet connected to a DTB account. The mobile wallet accepts both Airtel Money and MTN Mobile Money funds via a POS, or point of service, system. In Kenya, Kopo Kopo and DTB are partnering with Mastercard to build QR-payments capabilities for merchants. Customers take a picture of a merchant-identifying QR code on their phone and enter in the amount they want to pay. Merchants receive the payment, without the need for an additional device beyond the two mobile phones.

The partnership aids DTB's focus on reaching SMEs, Kopo Kopo's primary customer base. DTB provides access to full-functioning bank accounts for Kopo Kopo merchants. Kopo Kopo provides the payments technology and platform as well as access to a vast network of retail merchants who are already using its service. DTB defined the partnership with Kopo Kopo as largely an acquisition strategy—through the partnership, all merchants with Kopo Kopo accounts in Uganda would have bank accounts at DTB. While the partnership with Kopo Kopo did not necessarily reduce the cost of serving such merchants, it has greatly reduced the cost of acquiring them. For Kopo Kopo, the partnership has improved the product offering for merchants, driving usage of its service.

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We could have built the technology, but what was more attractive was the merchant base that Kopo Kopo were bringing to the table.”

– Farouk Khimji, Diamond Trust Bank

Case Study 4: Mastercard and Net1

Mastercard is partnering with Grindrod Bank and Net1 to reach unbanked population segments in South Africa. The partnership is part of a larger effort by the South African government to provide bank accounts and debit cards to 17 million social grant recipients and thereby digitize social grant payments. Grindrod Bank provides the banking license for the operation and the bank accounts for new customers. Mastercard provides the network and access to POS and ATMs. Net1 provides the biometric technology and a customer onboarding process. To reach unbanked customers in South Africa, Net1 developed a “cash assassination kit,” a suitcase containing tools to create a biometric identity, including a fingerprint reader, microphone, small camera, and internet connectivity that allows social grant recipients to register for the program, open a bank account, and instantly receive a Mastercard debit card and PIN in about 10 minutes. About 2,500 suitcases were set up in a variety of public locations such as South Africa Social Security Agency (SASSA) offices, churches, town halls, and tents

for recipients to visit and complete their registration and to receive their debit cards. Social benefits are then disbursed into bank accounts with Grindrod Bank and can be accessed through the debit cards at any location where Mastercards are accepted, including POS and ATMs. The partnership required Net1 and Mastercard to integrate their technology onto a single chip, enabling biometric and payment functionality.

Beyond providing access to 17 million grant recipients, and issuing more than 12 million Mastercards, the partnership also created more knowledge for Mastercard, which has used the partnership model to engage with other businesses and governments in a different way, that is to combine payments capabilities with biometric authentication.

Case Study 5: Société Générale and TagPay

Société Générale is partnering with TagPay to build and operate a mobile money platform in West Africa. The partnership began in 2015 as Société Générale set its sights on the mobile money market in West Africa, where telecommunications companies—or telcos—were starting to see success. The bank was rolling out a completely new digital banking brand in the region called YUP. Société Générale put a call out for technology partners to develop a mobile money platform for the brand. The bank decided to work with a fintech startup for a number of reasons. While working directly with MNOs offered an easier path, the bank worried that an MNO would soon seek a banking license and begin operating independently, taking customers with it. Additionally, to set its mobile money product apart from those offered by the telcos, Société Générale wanted its product to accept funds from any operator. Finally, speed was a key element in the bank's decision to partner. It wanted to move quickly and knew it could not do so by developing the technology internally.

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As a large financial institution, we would not be able to develop [the technology] quickly and efficiently.”

– Matthieu Vacarie, Société Générale

TagPay provided the opportunity to achieve all of these aims. TagPay operates the rails on which YUP customers can transfer mobile money. TagPay keeps a ledger of the transactions, which are backed by a pooled account at the bank, but does not own or hold any of the data. YUP, the new brand that is meant to be “light, agile, and young,” and is intended to attract new unbanked customer segments with fully mobile-enabled banking products, is now operating in Ivory Coast and Senegal. The bank aims to reach one million new clients by 2021. It holds an 8% stake in the fintech, which supports the stability of the partnership.

Creating New Offerings for Existing Customers

The second major challenge to deepening financial inclusion in emerging markets that led financial institutions to partner with fintechs is the ability to create profitable and useful services for existing customers in the lower market segment. Addressing this challenge provides easier and steadier revenue for financial institutions (as compared to acquiring new customers), and serves as an on-ramp to greater usage for customers who do not yet use a full range of financial services. The partnerships we surveyed in this category were all expected to increase customer loyalty and keep them engaged in the long-run.

Several of the financial institutions we interviewed are leveraging partnerships with innovative fintechs to accomplish this goal. For example, ICICI Bank, a large private bank in India, is partnering with Stellar, a Silicon Valley-based non-profit offering distributed ledger infrastructure services, to build a blockchain-enabled payments network for their customers. In Ghana, Stanbic Bank's partnership with DreamOval led to the creation of Slydepay, a mobile money platform that serves both individuals and businesses, with solutions tailored for the local Ghanaian market. And in Spain, Santander is partnering with PayKey to integrate a person-to-person payments function into popular messaging applications such as WhatsApp and Facebook Messenger.

The partnerships we found that address this challenge are all focused on mobile payments. While not necessarily representative of the industry as a whole, our research team was struck by this commonality. We see these moves as responses to competition from mobile money providers. In addition to adding features and convenience to standard bank services, the products these banks are offering attempt to go one step beyond MNOs by bringing interoperability into the mobile money market, including acceptance of transactions from multiple mobile money providers and easy transfers between customers at different institutions.

Case Study 6: ICICI Bank and Stellar

An ICICI Bank senior executive was reading a book about new technologies when he came across a blockchain company in Silicon Valley called Stellar. Now ICICI Bank is partnering with Stellar to build a blockchain-enabled payments network. Stellar provides ICICI Bank with an open-source online ledger, or blockchain, designed to oversee the movement of money. ICICI Bank customers in India and abroad can transfer money through a free mobile wallet over Stellar's platform. These transfers are made in real fiat currency, but internally they are documented in cryptocurrency. While the transfers are recorded on Stellar's ledger in a cryptocurrency called 'lumens,' ICICI Bank holds the value for these transactions in Indian rupees in a pooled account (see Figure 8 for a more detailed look at how transactions are carried out). Due to the open nature of Stellar's platform, ICICI Bank customers can transfer money to customers at any other bank on the platform. On the institution level, Stellar's open platform has allowed ICICI Bank to easily connect with financial institutions that it might not have been able to connect with otherwise.

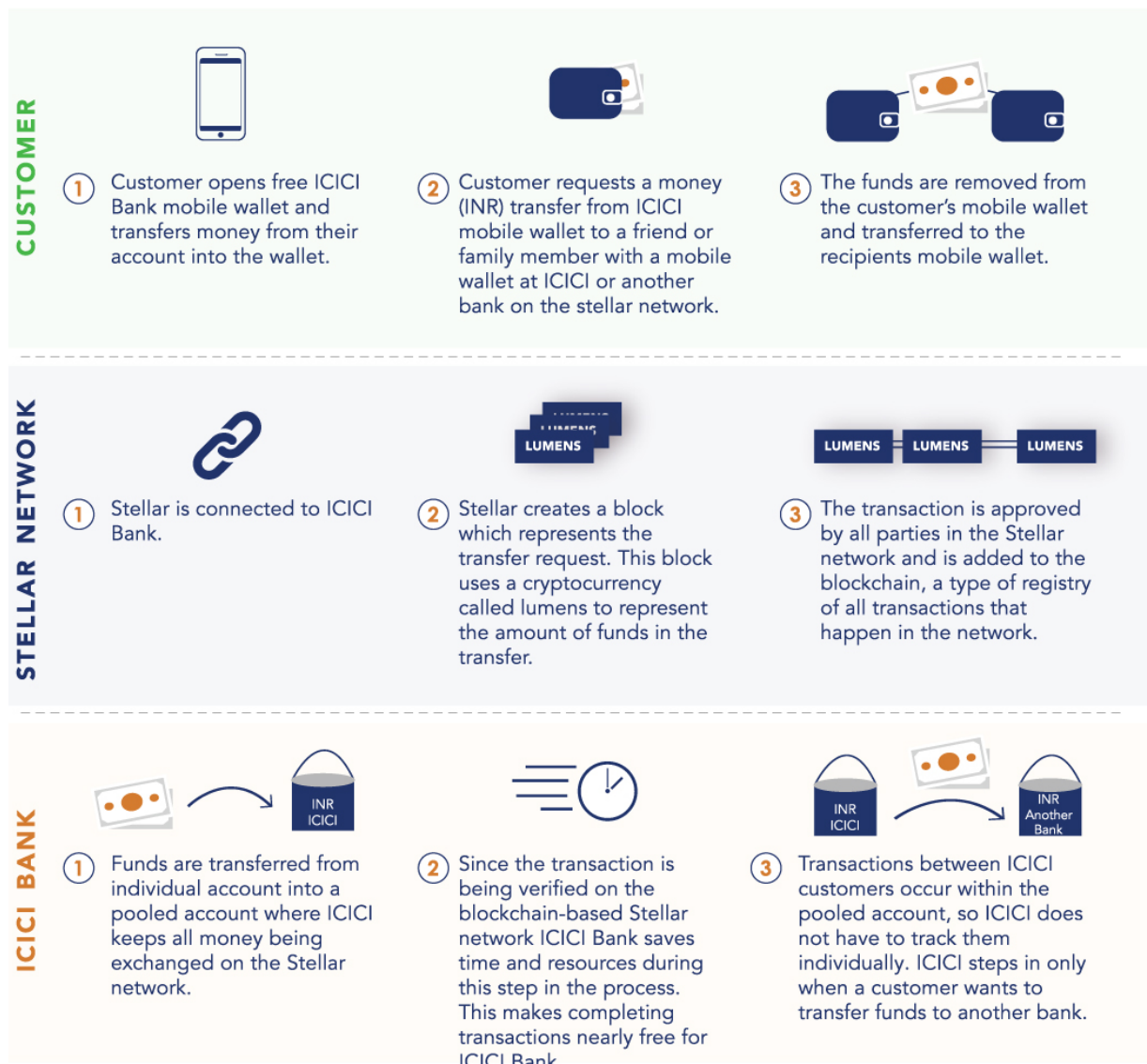
The partnership is expected to help transform the way value is transferred—both within the bank and between the bank and other institutions. Following the establishment of 300,000 accounts, the bank will pay Stellar a fee for each additional account. This low cost allows ICICI Bank to provide the wallet free to customers, enabling the bank to serve low-income customer segments that it would not have been able to sustainably serve before. Currently, the mobile wallet is being piloted on university campuses in

India. ICICI Bank envisions that it will become a core product for underbanked customers in the future. While this partnership developed rapidly compared to others cited in this paper, it took a bit longer than ICICI Bank's normal innovation timeline of 90 days to get to its first pilot.

FIGURE 8

ICICI BANK AND STELLAR

A look at a transaction enabled by blockchain.



Case Study 7: Stanbic Bank Ghana and DreamOval

Stanbic Bank is partnering with DreamOval to offer a mobile payments platform called Slydepay in Ghana. The platform enables customers to open digital wallets and perform functions such as monitoring their finances, paying bills, sending money, and

making online and in-store payments. The platform is unique in its ability to send and receive payments from a variety of mobile money channels (MTN, Tigo, Airtel, and Vodafone) as well as from any Mastercard or Visa. The target market segment for Slydepay is underbanked merchants who can use it to accept digital payments from customers and can benefit from digital records of payments.

The partnership between DreamOval and Stanbic Bank Ghana began long before Slydepay, with DreamOval managing the bank's digital transaction customer notifications. As the idea for mobile money evolved, Stanbic Bank Ghana and DreamOval worked together to co-create the service. DreamOval's role is to maintain the mobile money platform and develop smartphone and USSD applications for customers. Dream Oval has an API-type connection to Stanbic Bank Ghana's core banking platform, with defined access to information. Stanbic Bank Ghana and DreamOval share revenues from the transactions, where an estimated 70 percent of revenue comes from mobile money fees. Since its launch in April 2015, 75,000 Slydepay wallets have been opened, with 250 merchants using the platform. Stanbic Bank, a subsidiary of South Africa-based Standard Bank, plans to expand Slydepay to other countries in the region.

Case Study 8: Santander and PayKey

Santander is partnering with PayKey to build a peer-to-peer payments platform integrated into messaging applications such as WhatsApp and Facebook Messenger. The platform allows Santander's customers to send funds from their accounts to friends or family by pressing a custom key on the phone's keyboard, entering an amount, and verifying the transaction. PayKey developed the platform, including the integration of a key into customers' keyboards. In addition, PayKey manages the upkeep of the platform, adapting the keyboard and technology to any new phones or software updates that enter the market. Santander notes that this upkeep function is one of the drivers of Santander's desire to partner. While the bank may have been able to build the keyboard, the continuous updating of the technology and management of customer technical issues would have been far too resource-intensive.

The partnership began with a pilot, during which the PayKey technology was tested outside of Santander's IT system where it could be quickly evaluated. Now, as Santander prepares to launch the product, it is working to integrate it into the bank's IT infrastructure and to move it through the regulatory compliance process. Within the

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Can we create a keyboard? Probably. Can we create a keyboard that adapts to different operating systems that the customers have? It's more complex, but yes. Can we adapt it to the new versions of Android and iOS, keep it up to date, and solve issues that the customers have? That's much more complex. We need to focus on the things we know how to do—banking and credit—and we need to use other companies that are specialists in their field for other purposes.”

– Javier Herraiz, Santander

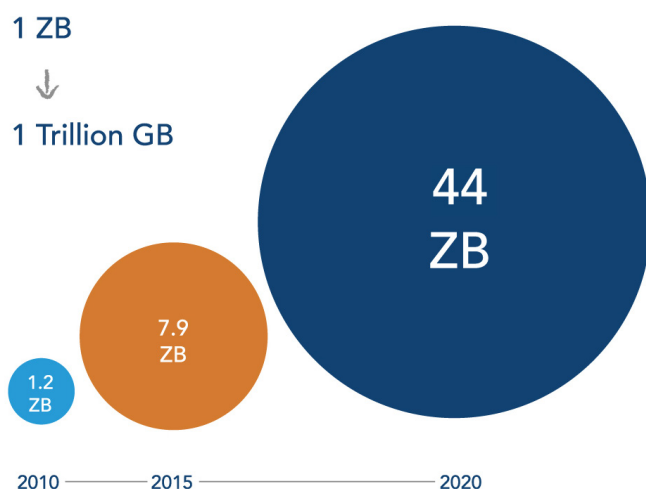
partnership, Santander pays PayKey for the number of users on the platform, rather than the number of transactions made. In addition, Santander Innoventures, the bank's venture capital fund, has invested in the company. The payments functionality will be rolled out in Spain first, but Santander aims to promote the platform in all the markets where the bank is present—including emerging markets.

Data Collection, Use, and Management

Another major challenge to deepening financial inclusion in emerging markets is effectively collecting, using, and managing data. Financial institutions have always maintained data on clients and used it to assess creditworthiness, segment clients, and design new products. But now, with more data available than ever before—according to International Data Corporation, a market-intelligence firm, the digital universe is doubling in size roughly every two years (see Figure 9)—financial institutions are turning to fintechs to help them organize and mine their data. For financial inclusion, data analytics are focused on calculating risk profiles for individuals traditionally excluded from the formal economy. Many individuals on the margins of the formal economy are rejected for loans because they have no formal credit history. Thus, lending to these thin-file customers has been challenging. This is beginning to change thanks to the growing capacity to measure, monitor, and analyze ever-increasing data for a more comprehensive understanding of risk.

FIGURE 9

ACTIVE GROWTH OF GLOBAL DATA



Source: CSC, IDC.

Several financial institutions are collaborating with tech firms to enhance their risk modelling techniques. For example, the BBVA Bancomer partnership with Destacame, featured in the previous section, aims to extend credit access to thin-file customers in Latin America through data analytics. Istanbul-based Turkiye Is Bankasi is exploring a similar partnership with a fintech that utilizes advanced algorithms to assess customers with limited or no traditional credit history. Santander has a partnership with Entrepreneurial Finance Lab (EFL) in Latin America to help evaluate creditworthiness of university students. In Spain, MicroBank is also partnering with EFL, using psychometric scoring to increase credit access to underserved SMEs.

Financial institutions also turn to fintechs to improve their data management processes. As mentioned above, through advances in technology, financial institutions are accumulating an enormous amount of consumer data; however, in many instances, the data is not leveraged effectively due to siloed digital infrastructure, inefficient legacy systems, and restrictive or uncertain regulatory requirements. Useful data management relies on the ability to efficiently obtain, store, retrieve, structure, clean, and analyze large bodies of data. This is a monumental task, and best practices and requirements are rapidly changing. Therefore, partnerships with

fintechs to help improve data management across an organization can be of tremendous value, helping financial institutions lower costs, identify customer potential, reduce fraud, increase cross-selling opportunities, and expand their customer base.

DemystData, a New York-based software as a service provider, began with alternative credit scoring as its main focus, and has broadened its support to financial institutions to include data testing, cleaning and standardization for improved data access and compliance. One of its clients is a major bank in the Philippines that values financial inclusion. Artoo in India also supports data management as part of its work to digitize the loan process from origination to underwriting, for example for Ujjivan, a small finance bank.

All the financial institutions we spoke with that were creating partnerships in this area faced regulatory challenges surrounding the movement and use of data. For Ujjivan, regulations required that all customer data was stored on servers in India. Artoo, its fintech partner, had to switch from Amazon Cloud Services, with servers housed in the U.S., to a local Microsoft-based cloud-service provider. In Mastercard's case, regulation in South Africa initially prevented integration of payments data with biometric identification data on one chip. Following a conversation with the regulators, however, the project gained permission to complete the integration. Meanwhile, for MicroBank (with EFL), BBVA Bancomer (with Destacame), and Bancolombia (with Juntos), all of which outsource credit assessment, regulation limited the flow of data from the banking institution to the alternative risk modeler, and vice versa. This is indeed a point of much contention in many markets and creates some tension in the partnerships. Banks seek to maintain control over customer financial data, while fintechs hope to gain access and use data in a variety of business models (e.g., credit assessment, lead generation, etc.). Conversely, fintech partners aim to keep their risk models proprietary while banks face regulatory requirements to disclose their models. The debate on these topics is often intense. In the U.S., the government recently deregulated the use of data by internet companies, but maintains strict regulations for financial institutions.

Another source of tension in these partnerships is the fact that risk modeling has long been a core strength of banking institutions. While fintech partners offer innovative ways to use new data, we see banks using these partnerships specifically as a way to learn. DemystData's business model offers insight into this trend, as DemystData has slowly shifted away from risk modeling and into data cleaning and management in response to the needs of their client institutions.

Case Study 9: MicroBank and Entrepreneurial Finance Lab (EFL)

MicroBank, a subsidiary of Caixa Bank, is working with EFL to extend credit access to thin-file entrepreneurs in Spain. EFL is a U.S.-based fintech that builds risk assessment models using psychometric data to assess creditworthiness among thin-file customers. Even though MicroBank

“
We are not experts on everything. We are experts on traditional scoring using financial data, but we are not experts on programming code, machine learning, technology, and mathematics.”
– Roman Weissmann Bermann, MicroBank

was focused on reaching new customer segments, it was using traditional data scoring and account information in credit decisions. EFL's psychometric scoring model offered a way to assess customers by asking them to fill out an additional questionnaire exploring behavior and attitudes. EFL's platform is also backed by machine learning, allowing the company's software to continually improve its risk modelling analysis by learning from its past evaluations and customer performance outcomes. This new scoring model led to a 70–80 percent approval rate of credit requests, up from a 10–20 percent approval rate with traditional risk models.

After two years of internal decision making and testing, MicroBank launched a pilot with self-employed customers and small and medium-sized enterprises asking for a loan of up to €25,000 to start a business. This segment is typically lacking in formal credit history, track record, or analyzable bank account data. With EFL, MicroBank could use attitudinal data to assess creditworthiness.

Due to data security issues, MicroBank had to establish an IT system completely separate from the bank's main IT infrastructure to operate the psychometric scoring model and store the resulting data. The parties are involved in a two-year fixed price agreement to launch the pilot. If they decide to move forward after this period, MicroBank anticipates regulatory pressure to disclose the factors involved in EFL's scoring model. MicroBank hopes that the partnership will help increase the customer base while maintaining or lowering the default rate.

Case Study 10: DemystData and Major Philippines Bank

A major bank in the Philippines is partnering with DemystData to expand credit products to thin-file customers. DemystData provides a technology platform to standardize and clean the bank's data, sources additional data from third parties, and tests the data in an efficient and secured manner through a single integration point. DemystData has also helped the bank verify customers in real-time and assess credit risk for potential new customers by enabling access to new data sources for customer verification and underwriting. The bank reviews information from various data sources, conducts tests and validation, and then decides which customers to accept based on its internal risk appetite. The institution still owns all the customer data and accesses DemystData's cloud-based platform through an API connection.

Through this partnership, the bank is learning how to tap into online, social, and other external data in a compliant way to make better credit decisions. In doing so, it is becoming more willing and interested in reaching out to newer customer segments.

Case Study 11: Ujjivan and Artoo

Ujjivan, a small finance bank in India that began as a microfinance institution, is partnering with Artoo to reach underserved micro, small, and medium enterprises (MSMEs) in India. The partnership began in 2012, providing Ujjivan with a way to scale up its MSME loan portfolio, which had been profitable but limited. Artoo provides a digital field application, a cloud-based platform that digitizes the entire credit process, including loan generation and underwriting. Ujjivan agents use the platform to input customer data and onboard customers. The platform also allows Ujjivan to better track sales

and portfolio performance. Artoo allows agents to capture more data points on potential customers and consequentially creates more quality data for the bank to use in credit decisions. Data is captured on the Artoo platform, but is still owned by the bank (see Figure 10 for a deeper look at this process).

“

We don't want to get into software development—it's not our core business. So we look for a partner who can develop a solution for us.”

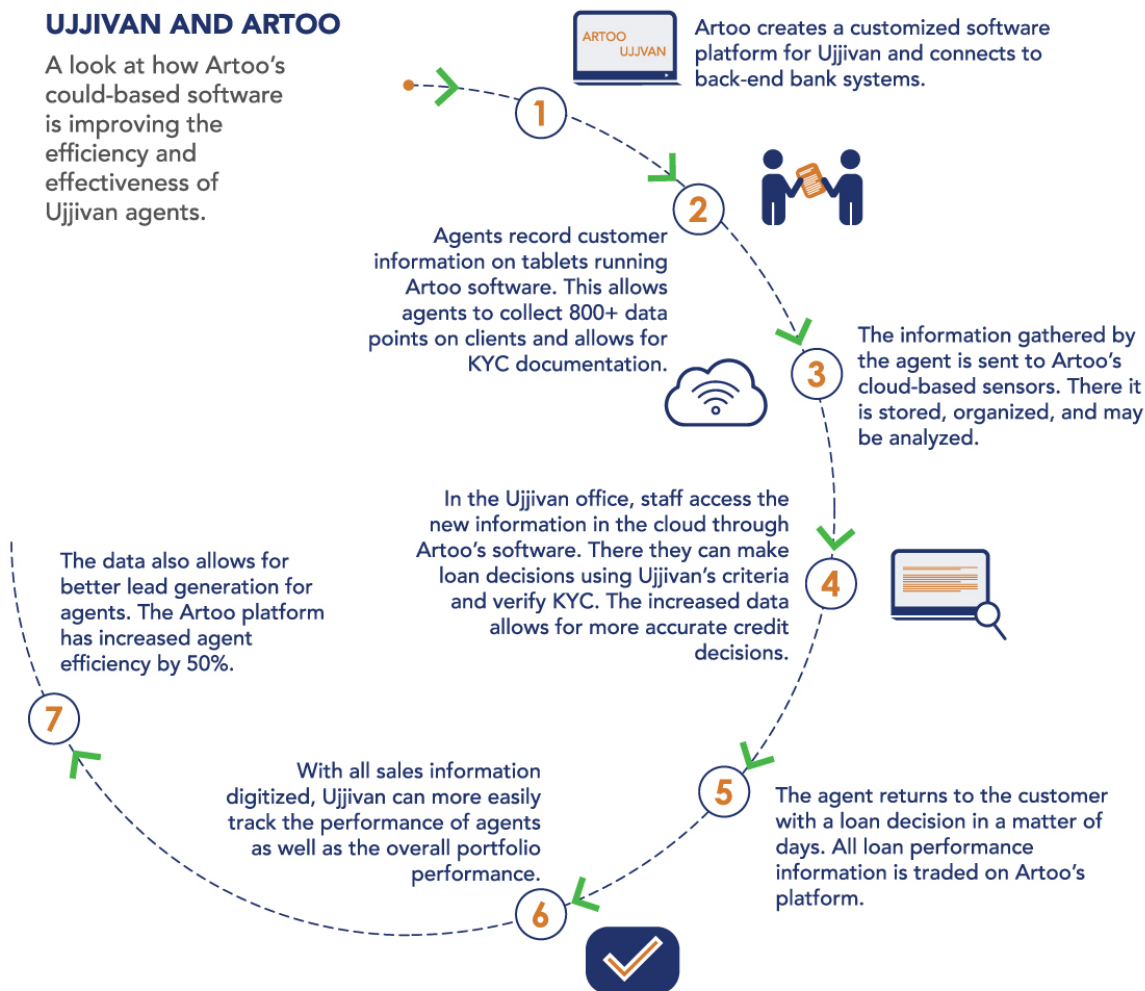
– Sneh Thakur, Ujjivan

Prior to the partnership, Ujjivan struggled with high operating costs compared to loan size in this segment. Artoo's platform has led to a 40% decrease in loan-processing time and a 50% rise in the number of loans processed per agent. The boost in efficiency resulting from the partnership with Artoo has enabled Ujjivan to expand its customer base from 60,000 to 200,000 people in three to four years, an increase of over 230%. Following a pilot where the companies split costs, Ujjivan now pays Artoo a subscription fee for the functions it uses.

FIGURE 10

UJJIVAN AND ARTOO

A look at how Artoo's cloud-based software is improving the efficiency and effectiveness of Ujjivan agents.



Deepening Customer Engagement and Product Usage

The fourth major challenge financial institutions are working to address through partnerships is deepening customer engagement and product usage. Interviewees told us that because large portions of the population in emerging markets are outside the formal financial sector, bringing them into it requires financial education and enhanced interfaces for customers. Simply providing products and services is often ineffective, as people also need to understand how services work and the associated benefits and risks, as well as the confidence to use new delivery channels. Integrating “learning moments” into products is important in reaching underserved low-income customers, as it helps expand their financial capability and potentially their use of financial products.

Several financial institutions explained the importance of creating ongoing engagement and frequent interactions with new low-income customers to build stronger relationships and increase loyalty, trust, satisfaction, and ultimately retention. More broadly, they hope this kind of engagement will improve the public’s perception and understanding of financial products and services through word of mouth, and ultimately increase the demand for such offerings.

Our interviews revealed several examples of partnerships addressing the customer engagement and product usage challenge. For instance, MetLife is collaborating with Imagine, a virtual reality and augmented reality software developer based in Hyderabad, to create a unique customer journey for insurance policyholders throughout India. The fintech allows MetLife customers to immerse themselves in a virtual branch where they can engage with agents digitally to have questions answered and submit claims. In Latin America, BBVA Bancomer and Bancolombia are each working with Juntos, a Silicon Valley-based fintech that harnesses artificial intelligence. The two banks leverage Juntos’ platform to communicate frequently and personally with their customers through automated text messages that are customized to the individual.

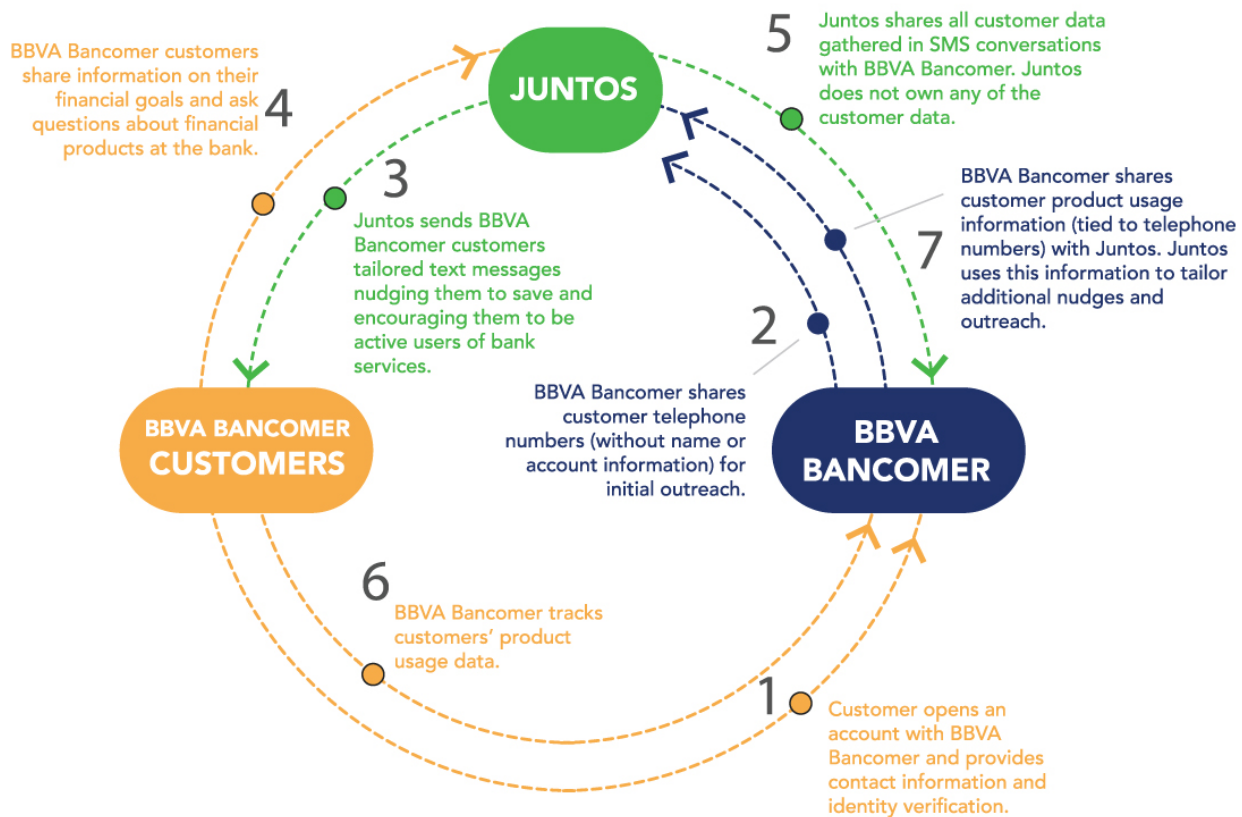
Partnerships addressing this challenge were focused on using digital tools to provide additional and more effective customer touchpoints. Juntos’ targeted text messages and Imagine’s VR platform enhance the customer experience, but do not alter the financial institution’s product and service offerings. Financial institutions are jumping on that opportunity for a number of reasons. The automated customer relationship is much less expensive than in-person branches or banking agents. Moreover, automation creates a digital record of what helps increase customer engagement, which can be used to inform increasingly tailored outreach. Partnerships focused on customer engagement typically aim to increase usage and hence profitability for existing or recently acquired customers. The financial institutions we spoke with hoped for benefits from these partnerships in the short-term, whether through increased transaction rates or increased data on those transactions.

Case Studies 12 and 13: Bancolombia and BBVA Bancomer and Juntos

BBVA Bancomer in Mexico and Bancolombia in Colombia are partnering (separately) with Juntos to increase customer engagement and usage. Juntos is a Silicon-Valley based startup which provides an automated SMS conversation service. Enabled by artificial intelligence, Juntos sends tailored text messages to customers, reminding and nudging them to save and become active users of bank services. Customers can respond through the platform with more information on their financial needs and goals, and this information is used to inform future communications.

FIGURE 11
BBVA BANCOMER AND JUNTOS

The flow of data between BBVA Bancomer and Juntos allows for increased customer engagement.



In creating a realistic two-way dialogue, Juntos builds strong relationships with customers, becoming a trusted source of financial advice. The two-way SMS communications platform has greatly increased usage of financial products with the bank.

Bancolombia partnered with Juntos for the fintech startup's first international pilot in 2013. The bank wished to increase usage among customers with largely inactive payroll or social benefit payment accounts. Bancolombia and Juntos targeted customers right after account opening. The pilot was a success, with an average satisfaction score of nine out of ten from participating customers. In addition, active new accounts increased by over 30% and account balances increased by 50%. Following this successful pilot, Bancolombia established a continuing partnership with Juntos. With Juntos' help, the bank increased the use of agent and mobile channels among new customers, lowering costs for the bank and for customers.

BBVA Bancomer's partnership with Juntos began with a pilot to convert clients receiving payroll or government subsidy payments into engaged customers. Although the pilot took a year to plan, it ultimately showed sufficiently promising results for Juntos to become an ongoing technology provider for the bank. BBVA Bancomer pays the company for each customer Juntos communicates with. There is no integration into BBVA Bancomer's core banking system except for a mechanism to share information between the institutions. All messages are sent from and received directly on Juntos' platform. When customers text Juntos a response, Juntos shares this data with the

bank, and does not own or keep it (see Figure 11 for a look at the transfer of data between BBVA Bancomer and Juntos). The bank shares information on client performance with Juntos, though it is limited by client confidentiality regulations. As of the end of 2015, Juntos contacted 72,134 BBVA Bancomer customers, and 96% of them opted to receive Juntos messages.

Case Study 14: MetLife and Imagine

PNB MetLife partnered with LumenLab (MetLife Asia's Singapore based innovation center) and Imagine to improve the customer experience and provide better support for insurance policy holders in India. Imagine, a virtual reality developer, co-created a virtual customer experience called conVRse. Available at 15 PNB MetLife branches throughout India, customers wearing the VR headset are transported in to a virtual representation of a branch. Once inside, the customer is able to interact with a virtual insurance expert – Khushi – who is in fact a real-life assisting expert.

conVRse, the VR platform, brings the branch experience and customer service elements directly to the customer. Using the software developed by Imagine, the PNB MetLife team can display customers' information during a conVRse session to help address any queries. Information is not stored once the session has ended, thereby preserving client data confidentiality. To date, several thousands of customers have experienced the VR headset with over 90 percent of users rating the experience highly. Looking towards the future, LumenLab envisions that MetLife's customers will go truly omnichannel and may prefer to engage with the company through conVRse using their phones (and headset) from the comfort of their homes.

“

You can never innovate faster than the market. By partnering with fintechs on known challenges and by committing champions to the startups, we can get more innovations into the hands of our customers, sooner.”

– Zia Zaman, MetLife LumenLab

What's Next?

At a recent digital financial services summit, Chris Skinner of *The Finanser* likened financial institutions' hesitation over fintech to a driver trying to move forward while looking through the rearview mirror. This report begs to differ. Instead of seeing a collection of "mastadons," we see a number of financial institutions that are strategically engaging with fintechs. They play to their strengths and work with fintechs to augment those strengths. Financial institutions approach innovation with some caution, but this gives them the advantage of seeing what works, and then acquiring or developing those technologies.

As noted in the first section of this report, the future of the partnerships we observed remains unclear, particularly as many of them are still in pilot stages. Some partnerships may lead to acquisitions, while others may lead to learning and development in-house at financial institutions. No matter what path the partnerships take, we are confident that low-income customers will benefit. Better data management and use, new digital banking products, and greater customer engagement all enable better service for underserved populations.

Partnerships between financial institutions and fintechs are shaping the future of customer engagement, institutional strategy, and the general trajectory of the finance sector. All of these will have special relevance to the inclusion of new or disengaged customers into the financial system. Financial institutions use partnerships to deliver more choices to customers—as in the case of partnerships to provide new payment products to their existing customer base. They use partnerships to make products more usable and accessible—as in the case of partnerships that increase customer engagement. They use partnerships to scale products to sustainably offer services to lower income people. All these goals will be critical to building trust, improving relationships, and building capability for a new set of customers.

Partnerships also drive institutional-level innovation. Through partnerships, financial institutions learn what is possible and shift their strategies to account for this. With the help of partnerships, financial institutions can test technology in low-risk ways, better understanding how it works for their customer base. Institutions that organize to partner with fintechs also organize for their own innovation, creating ways to test and learn, try and fail, and speed up the timeframe under which this happens.

Partnerships are key to allowing incumbents to compete in a world where alternative players are challenging the role of financial institutions in the lives of customers. By offering better, less expensive, and more innovative products, financial institutions can assert their continued relevance as customer-facing institutions. If financial institutions can continue to innovate to ensure they are trusted and responsive, while providing a rich user experience that better meets the demands and expectations of their clients, they will not "fade into the background" as WeBank's Jared Shu predicts.

Banks, insurers, and payments providers are not looking through their rearview mirrors. But neither are they off-roading into the future. Instead, we see these companies using fintechs as a roadmap, charting a course through new landscapes as they go. If financial institutions can continue to learn from fintechs, and if the relationships can continue to be mutually beneficial, we see a bright future for partnerships enabling financial inclusion.

Appendix A: Study Methodology

To catalog best practices and better understand challenges associated with successful partnerships between mainstream financial institutions and fintechs, researchers from IIF and CFI identified approximately 70 partnerships that met the following criteria:

- Operating primarily in emerging markets
- Either directly or indirectly focused on serving low-income, “unbanked,” or “underserved” customer segments
- Involving a mainstream financial institution (bank, insurance company, or payments provider) and a fintech firm

In addition, the researchers identified about a dozen industry experts and leaders in the financial services industry, many of whom represent mainstream financial institutions and all whom have seen a high number of partnerships. Interviews with 32 people at 25 financial institutions, fintech firms, and other entities took place over the course of two months. A list of interviewees can be found in Appendix B and a sample interview guide is available on request. Along the way, an advisory group that included stakeholders from mainstream financial institutions, multilateral investment institutions, venture capital firms, and industry experts spoke with researchers from time to time to provide guidance (see Appendix B).

The limitation of selecting an interview sample based on successful partnerships is clearly the absence of an opportunity to learn from less successful examples to better understand success factors. Experts emphasized that the number of fintechs banks say they are going to work with is much larger than the number they actually work with. One interviewee estimated that only about one in ten partnerships initially considered is ultimately implemented. The insights presented here, therefore, should be taken as indicative rather than definitive. Nevertheless, we expect that through this research, financial institutions and fintechs will get a sense for the elements of successful financial institution-fintech partnerships.

Appendix B: Persons Interviewed

Institution	Interviewee	Title	Partner Firm(s)
PARTNERSHIPS			
AXA *	Quentin Gisserot	Project Manager - AXA Emerging Customers	MicroEnsure
Bancolombia *	Cristina Duque Jaramillo Lina Osorio	Gerencia Desarrollo de Inclusion Financiera Gerencia de Ventas de Inclusion	Juntos
BBVA / BBVA Bancomer *	Carlos Lopez-Moctezuma	Head of New Digital Businesses & Financial Inclusion, BBVA	Juntos Destacame
CaixaBank - MicroBank *+	Roman Weissmann Bermann	Risk Director	Entrepreneurial Finance Lab (EFL)
DemystData	Laurence Chalude Matt Hennessy	Director, Public Affairs & Marketing Director, Strategic Accounts	Major bank in Philippines
Diamond Trust Bank	Azmaira Thobani Farouk Khimji	Manager, Marketing & Corporate Communications Head of Products & Marketing	Kopo Kopo
Entrepreneurial Finance Lab (EFL)	Rodrigo Sanabria	Director of Advisory Services for Latin America	Santander
ICICI Bank *	Raj Chowdhury	Head of Innovation (Blockchain)	Stellar
Mastercard *	Nina Nieuwoudt	Vice President; New Consumer	Net1
MetLife * (LumenLab)	Aditya Rajashekar Hemanth Satyanarayana	Assistant Manager, LumenLab CEO, Imagine Technologies Inc.	Imagine
Santander *	Javier Herraiz	Payments Director at Bank of the Future, Santander Digital Division	PayKey
Société Générale *	Matthieu Vacarie	Directeur General, YUP	TagPay

Standard Bank / Stanbic Bank Ghana *	Patrick Quantson	Head, Emerging Payments	DreamOval
Ujjivan	Sneh Thakur	Head of Credit	Artoo
INDUSTRY EXPERTS			
Allianz SE *	Solmaz Altin	Chief Digital Officer	
Citi *	Philip Brown	Managing Director, Citi Inclusive Finance	
	Sergio Barrero	Senior Vice President, Citi Inclusive Finance	
CVOX Group	Maria Mancuso	Co-Founder	
	Ray L. Ruga	Co-Founder	
ING*	Benoit Legrand	Global Head of Fintech	
International Finance Corporation *	Nuria Alino Perez	Principal Digital Financial Services Specialist	
	Matthew Saal	Head of Digital Finance	
Mastercard Labs (Mastercard) *	John Sheldon	Senior Vice President	
Mitsubishi UFJ Financial Group *	Makoto Shibata	Head, Global Innovation Team	
Sw7	Keith Jones	Co-Founder	
Turkiye Is Bankasi *	Mehmet Fahri Can	Division Head, Digital Banking	
	Ceren Sayar	Innovation Unit Manager	
WeBank *	Jared Shu	Head of Strategy	

* Indicates IIF Member Institution

The Center for Financial Inclusion at Accion (CFI) is an action-oriented think tank that engages and challenges the industry to better serve, protect and empower clients. We develop insights, advocate on behalf of clients and collaborate with stakeholders to achieve a comprehensive vision for financial inclusion. We are dedicated to enabling 3 billion people who are left out of – or poorly served by – the financial sector to improve their lives.

For more information visit www.centerforfinancialinclusion.org

The Institute of International Finance is the global association of the financial industry, with close to 500 members from 70 countries. Its mission is to support the financial industry in the prudent management of risks; to develop sound industry practices; and to advocate for regulatory, financial and economic policies that are in the broad interests of its members and foster global financial stability and sustainable economic growth. IIF members include commercial and investment banks, asset managers, insurance companies, sovereign wealth funds, hedge funds, central banks and development banks.

For more information visit www.iif.com.



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