IN THE MEDIA

DIGITAL FINANCIAL SERVICES and THE LEVEL ONE PROJECT

Here we've compiled a handful of articles that highlight the critical role digital financial services can play in driving financial inclusion around the world. The conversation is growing, and we invite you to join it.

2 THE VERGE

BILL GATES ON THE VERGE: CAN MOBILE BANKING REVOLUTIONIZE THE LIVES OF THE POOR?

6 WEF AGENDA BLOG

HOW CAN WE SPREAD THE DIGITAL MONEY EFFECT WORLDWIDE?

8 AMERICAN BANKER

WHAT BANKS CAN LEARN FROM NOBEL ECONOMICS WINNER

10 HARVARD BUSINESS REVIEW

MOBILE PHONES PROMISE TO BRING BANKING TO THE WORLD'S POOREST

12 MAIL & GUARDIAN AFRICA

COOPERATION BETWEEN MOBILE BANKING PROVIDERS WILL BENEFIT THEM, USERS AND GOVERNMENTS

14 EUROMONEY

HOW FINANCIAL INCLUSION WILL CHANGE THE FACE OF BANKING

23 THE BANKER

A BRAVE NEW WORLD OF MOBILE MONEY

THE VERGE

BILL GATES ON THE VERGE: CAN MOBILE BANKING REVOLUTIONIZE THE LIVES OF THE POOR?

Ben Popper

In the village of Sori along the banks of Kenya's Lake Victoria, fishing has long been the lynchpin of the local economy. Jobs here are largely divided by gender: men catch the fish, and the women process the meat, take it to market, and handle finances.

As detailed in a 2012 study from the SIT Graduate Institute, residents of Sori traditionally kept their money at home. Theft was a constant concern, and many of the women interviewed reported their husbands misappropriating their savings. For many, traditional banks were either too far away, or demanded minimum deposits the villagers could not afford.

All that changed in 2007 with the introduction of M-PESA, a mobile service that allows Kenyans to store and transfer their money using only a cell phone. Funds can be exchanged over the network using SMS messages, meaning it works on almost any mobile phone. M-PESA agents spread throughout the country allow users to convert their credit to cash and deposit or withdraw from their accounts. The majority of Sori women interviewed for the study now keep their savings in M-PESA accounts, safe from criminals and wasteful purchases.

M-PESA also revolutionized how the women sold their goods. Prior to M-PESA, the women worked only in cash. To sell their fish, the women would have to travel by bus to markets, trips that cost them money and time. Since the adoption of M-PESA, the women send the fish to market by bus and receive payment remotely. "Where it may have taken a woman a week to sell two bags of fish in Nairobi, she now spends one morning buying and sending the fish on a bus to Nairobi for sale by her customers," reports the study. With their newfound savings, women reported being able to make long-term investments: sending their children to better schools and building themselves more durable homes to withstand seasonal floods.

When we asked Bill Gates to edit The Verge this month, he pointed to digital banking solutions like M-PESA as a technology that will revolutionize the lives of the poor in the near future. "In the next 15 years, digital banking will give the poor more control over their assets and help them transform their lives," he wrote in his annual letter. "By 2030, 2 billion people who don't have a bank account today will be storing money and making payments with their phones. And by then, mobile money providers will be offering the full range of financial services, from interest-bearing savings accounts to credit to insurance."

Mobile money is a fast-growing industry across many parts of the developing world. But can it really transform the lives of those living on just a few dollars a day?

Of the 2.5 billion people in the world who have no access to a traditional bank, approximately 1 billion have a mobile phone. The widespread adoption of mobile phones has enabled some of the poorest economies on earth to leapfrog ahead of developed nations when it comes to tech-driven financial solutions. A report in The Atlantic noted that adults in Sub-Saharan Africa are three times more likely to use mobile money as their counterparts in Europe and the Americas. In fact, another recent report found nine African nations now have more mobile pay accounts than traditional bank accounts.

Kenya is frequently cited as a successful example of how mobile money can dramatically transform a country's economy. In 2006, less than 30 percent of adults in the country had access to formal financial services. Thanks to M-PESA, today that figure stands above 65 percent. Developed by telecom giants Vodafone and Safaricom with the blessing of the Central Bank of Kenya, by 2010 M-PESA was considered the most successful mobile money service in the developing world. In 2014, the service processed over $20 billion in transactions, a figure equal to more than 40 percent of the nation's GDP.

Widespread adoption has bolstered Kenya's economy, says Dr. William Jack, a professor of economics at Georgetown who, along with Dr. Tavneet Suri of the MIT Sloan School of Management, has studied the service and published several papers on its impact. "There is unequivocal proof that M-PESA has a positive impact on people's financial health."

Those financial benefits convinced many, including the Gates Foundation, that mobile money was a powerful tool in the fight against global poverty. "People being able to participate on their phone, no matter where they live, even if they're in a remote rural village in Tanzania or Kenya, they'll be able to save small micro-payments," Gates told The Verge during an interview in New York. "They can participate on the economy through their phone, but also in the fall when it's time to pay the school fees, they've saved the money for the year. That's transformative for their family."

But as banks, governments, and telecommunication companies have learned, replicating the success of M-PESA in other developing nations is not so simple.

Between 2010 and 2013, mobile money services began a push to expand in countries like India, Nigeria, and Brazil, but onlookers were dismayed by the pace of adoption. "There have been about 200 of these experiments around the world, and maybe only four or five have been successful," Michael Joseph, director of mobile commerce at Vodafone, told Financial Times.

"People saw what happened in Kenya and were excited for mobile money to take the rest of the world by storm," says Claudia McKay, a senior financial sector specialist with CGAP. "People thought it was this magic service that would pull us all out of poverty, but it wasn't working like it did in Kenya anywhere else in the world. Do you know the hype cycle? Well the last few years have been our trough of disillusionment."

One of the primary reasons M-PESA took off so rapidly was that it was offered by Safaricom, the nation's dominant mobile carrier. "People had already come to trust them with their money," says Dr. Jack. "And the lack of competition, and fragmentation, made it much simpler to grow."

Kenya's institutional dysfunction also proved to be an advantage when it came to mobile money adoption. An underdeveloped banking industry, unreliable roads, and an unstable government made M-PESA an appealing option. "All the reasons it worked there are the same reasons that it wouldn't work if you tried to bring it to the more developed and tightly regulated markets," says Peter Wennemacher, a mobile banking analyst with Forrester Research. "The government and the financial institutions [in Kenya] were comfortable with a lot more risk."

That risk included the use of M-PESA by criminals to move illicit proceeds. Laundering dirty money was now as simple as sending a text message. “Most countries would hesitate to help a massive channel for illegal transfers like that to develop,” says Abhishek Chauhan, a mobile banking analyst with Frost & Sullivan. “People were aware that this was being used by drug lords and smugglers.”

“The Central Bank took a very hands-off approach,” says Dr. Jack. For example, regulators tolerated a near complete lack of deposit insurance. The bank accounts that M-PESA stored funds in were federally insured for 100,000 Kenyan shillings. But Safaricom pooled everyone’s deposits together into just a few accounts. In the event of default, it would be impossible to pay everyone back or determine who got some of the small amount covered by insurance.

Additionally, in countries like India, where a robust banking sector already exists, mobile payments have been less successful. There, the ability to launch mobile payment services was restricted to established incumbents. “The banks are inclined to protect their existing revenue streams; there is less motivation to innovate,” says Wennemacher. “And to be fair, there are a lot of regulatory pressures that some of the tech innovators don’t face.”

After the trough of disillusionment comes the slope of enlightenment, and there is good reason to believe that in the last two years, mobile money has found its stride, learning from its mistakes in the post-M-PESA boom. There are now well-established markets with multiple competitors across Africa, Asia, and Latin America. Research from the Groupe Speciale Mobile Association (GSMA), which has received funding from the Gates Foundation, shows the number of mobile money services across the globe expanding from just 64 in 2010 to 255 at the end of 2014.

In Bangladesh, where state-sanctioned mobile money services launched in 2010, mobile money services have more than tripled in size over the last two years. A similar story has played out in the archipelago nation of the Philippines, where a trip to the nearest bank can take days and may require a boat ride. A 2012 IMF study found that not only was mobile money far faster and safer than traditional banking in the Philippines, but it was also less expensive: fees on remittance using banks averaged 2.5–10 percent; on mobile, that same transaction had an average fee of just 1 percent.

But whether or not mobile payments can significantly address global poverty is up for debate. “I think there is some evidence that the basic deposit, withdraw, and send functions help poor people to have more choices, more convenience, more privacy, and more security in their financial lives,” says CGAP’s McKay. “But people thought it was a magic service that would pull us all out of poverty. I would not say that mobile money in and of itself is going to pull people out of poverty. That would be going too far.”

In the short term, mobile banking could address a number of critical issues, including corruption. “When you’re dealing in cash in economies with a lot of corruption, half of your wages are gone before you see that money,” says Julie Ask, an analyst with Forrester Research who has written extensively on mobile money. “With the government using mobile to pay your wages, you can avoid a lot of that.” Afghanistan has paid policemen with a local variant of M-PESA, and Tanzania accepts taxes over mobile.

And in the long term, experts believe layering additional services on top of a basic mobile financial platform could make a significant impact on poverty. In Kenya, M-PESA has begun partnering with banks and companies to offer a richer array of services and financial products. “Once these services get going, then there will be competitive innovation in offerings like special savings or credit plans related to farming or education,” says the Gates letter. In Kenya that looks like M-Shwari, a partnership between M-PESA and the Commercial Bank of Africa. In the two years since it launched, M-Shwari has attracted 9 million customers with a combined $1.47 billion in savings. Customers can earn interest on their money and, if they develop good credit, access loans to help them make big purchases or start a business.

Utilities are another service being layered on top of mobile money. In many parts of rural Kenya, villages aren't on the electrical grid—35 million people depend on kerosene lamps for light and borrow power from car batteries to charge cell phones. Now, a company called M-KOPA is offering Kenyans low-cost solar panels, and M-PESA is at the heart of their business.

M-KOPA sells its devices for a small down payment, about $30, with the rest paid out in installments over a year. Inside each solar panel is a SIM card connected to a nationwide cell network powered by Safaricom. People can use M-PESA to pay their bills. If they miss a payment, they can't draw power, but can easily switch that back on when their finances stabilize. The flexibility of this system has allowed a population to access modern energy that was previously out of reach.

At the end of their letter, Bill and Melinda Gates note that the innovation in mobile money will eventually "trickle up" from developing to developed nations. Indeed, mobile banking innovation is also happening in the United States in response to banks increasingly abandoning lower-income customers.

A mix of new regulations and record low interest rates means small savings accounts are no longer profitable for traditional banks in the US. As a result, more and more Americans are joining the ranks of the unbanked. In New York City, a startup called One Financial is trying serve these individuals and recreate the success of M-PESA.

"After the financial crisis, a lot of major banks shut down branches in less wealthy neighborhoods because they weren't as profitable," explains One Financial co-founder Vinay Patel. That has led to the closing of nearly 2,000 bank branches, more than 90 percent of which were in poor neighborhoods. "For many of their customers, that now means they don't have a bank and are served only by check-cashing and payday loan stores with extremely high fees."

Patel says that even though the old banking model with expensive branches and extensive infrastructure is no longer viable within low-income communities, on mobile it can still be a profitable market segment. One Financial is hoping to offer customers a virtual bank that exists primarily as a phone app. They can use a mobile device to deposit checks, receive their wages directly, check their balance, or transfer funds. A debit card takes care of paying at merchants and withdrawing cash from ATMs.

As Gates told The Verge, "It starts to be economic to bank the very poorest. Not with branches or ATMs, but simply with the cellphone." He further elaborated the point in his letter, noting that "because there is strong demand for banking among the poor, and because the poor can in fact be a profitable customer base, entrepreneurs in developing countries are doing exciting work." That's increasingly true no matter what part of the world you live in—anywhere traditional banks can't or won't serve a large portion of the populace, the technology in our pockets is helping fill the gap.

WORLD ECONOMIC FORUM

HOW CAN WE SPREAD THE DIGITAL MONEY EFFECT WORLDWIDE?

Konstantin Peric, deputy director, Financial Services for the Poor team, The Bill & Melinda Gates Foundation

Earlier this year, Bill Gates projected that two billion people will enter the formal financial system by 2030. Why is he so confident? Why is large-scale financial inclusion now more likely than ever, even in the world's poorest places? Because the world has gone digital.

Ninety percent of the world's poor are covered by a mobile signal, a simple and powerful inroad to mobile money and digital banking. And using digital payment technologies, especially those that use mobile phones, can reduce transaction costs by more than 90 percent. With digital financial services, we have the tools to introduce billions of people to the security of formal banking, and we can do so without introducing unique or prohibitive risks and costs to banks. The transition to digital is clear and imminent; it's time for the world to fully capitalize on a model that benefits everyone.

But how can we bring this model to fruition worldwide? Digital payment systems are thriving in Kenya, India and other countries. But who will make it so that every country can offer its entire population a safe and easy way to spend, save and share funds digitally?

The answer to that question is: all of us. At the Bill & Melinda Gates Foundation, we're working with partners across government, the private sector, the banking industry and nonprofits to make digital financial services accessible and desirable to everyone. The initiative I am leading—the Level One Project—has a vision for how to build shared, flexible infrastructure that will make digital transactions as seamless, reliable and secure as possible to flourish around the world.

Crucial to our goal is an open technology platform with shared principles and features. For digital financial tools to flourish, users have to be able to perform transactions with anyone, regardless of carrier, brand or bank. Interoperability is the only way to bring about worldwide usage, and, ultimately, large-scale financial inclusion.

Building such a system will not be easy, but fortunately there are plenty of places to look for inspiration. The Reserve Bank of India (RBI) is just the latest example. In licensing 11 "Payment Banks" across the nation, the RBI is doing two things that are crucial for powering financial inclusion. First, it is creating the means for high-volume, low-margin transactions, which is exactly the kind of activity poor people engage in. Second, it is using the infrastructure of non-banks to enable simple bank-like transactions for customers, thus avoiding the liquidity and credit concerns of traditional bank relationships and providing an ideal, low-risk way to introduce India's poor to the formal financial world.

Strides like these require leadership and innovation. But is there any doubt it is worth it? From a commercial point of view, you have billions of new customers to enlist and transact with. From a national point of view, you have an economy that grows, stabilizes, innovates and thrives.

And from a human point of view, you have billions of people who escape the threats and uncertainties of life outside the formal financial system. The value of performing transactions in minutes instead of hours or days cannot be measured only in time. And the value of a more secure way to save and plan ahead cannot be measured only in dollars.

We challenge you to be a part of this movement. Bring your courage, knowledge and innovation to the table. Let's design an infrastructure on a global scale. Let's make it easy to use, safe, secure and accessible to all people.

An economy that includes everyone benefits everyone. Will you join us in creating it?

AMERICAN BANKER

WHAT BANKS CAN LEARN FROM NOBEL ECONOMICS WINNER

Rodger Voorhies, director, Financial Services for the Poor team, The Bill & Melinda Gates Foundation

The opportunity for the financial services industry and other stakeholders to address the challenges of the world's poor is greater today than ever before. That is thanks, in part, to better tools for measuring the precise magnitude and characteristics of global poverty. And that, in turn, is largely thanks to the work of Angus Deaton, the Princeton University professor who will receive the Nobel Memorial Prize in Economic Sciences on Thursday.

Deaton taught us that uncovering the truth about poverty requires looking beyond how much money a person has or how many impoverished people live in a country or area. We must look at how these people actually live their lives. Deaton's "household surveys" took the measurement of poverty beyond income and into the nuances of consumption, expenditures and the conditions of life.

As is true with many foundational thinkers, Deaton's early observations were actually quite radical when he first made them, decades ago. From him we learned that poor people have difficulty borrowing money, have volatile incomes, more regularly tap into savings to buffer against sudden financial shocks and amass insurance through social networks and large households, rather than through formal networks. Lately, Deaton has ventured into measuring happiness and contentment—work that is both extremely difficult and hugely important to understanding what poverty means to the people grappling with it.

So how can financial services use the better understanding of poverty enabled by Deaton's work to respond to the market needs of the world's poor? We now understand that being poor, in short, is expensive. And with limited assets come more and greater strains, including hard material costs. If you have a bank account, you can write and accept checks for free. But if you're a poor worker trying to share cash wages with your family back home, you have to pay a steep transaction fee with every transfer. Globally, the average fee is around 8 percent, but in some places it's much higher—nearly 17 percent when sending money from South Africa, for example.

In addition to hard costs, poor people face considerable non-monetary expenses. Poverty costs you time: Paying a bill with cash can mean traveling all day to get to the appropriate office. Poverty costs you opportunity: Many poor people lack a formal ID, which often precludes them from signing up for a bank account, loan and many other services. And poverty takes a serious, ongoing mental toll: Constantly calculating how to make it to the next day is immensely stressful and wearisome.

Not only is poverty more precisely studied and understood today, but the resources we have to eradicate it are more advanced. Digital financial services in particular demonstrate exciting pathways to the improved well-being and empowerment of poor people. People with limited assets need tools that help them maximize their assets rather than save. By that token, simple digital accounts that enable people to store and spend money easily and securely—in many cases, from their mobile phones—can have tremendous benefits. For example, families can better acquire food, education, healthcare and other necessities; farmers and entrepreneurs can invest more in their businesses; and people can build up cushions against accidents, illnesses and other financial emergencies that would otherwise push them back into poverty.

Digital financial services have taken off in many developing markets. In Africa, the industry is expected to top $1.3 billion in the next four years. But to make them truly pervasive, we must follow Deaton's lead and apply a detailed understanding of the habits and needs of households and individual people. For banks, this means having sign-up requirements tiered according to risk. Simple accounts can have simple requirements, so that poor people without ID can still become customers. For progressively more advanced accounts and services, requirements can be stricter.

Banks can also focus on lowering transaction fees. Decades of research have shown that the poor make plenty of financial transactions. They just happen to fall mostly outside the formal economy. For banks to capture that activity, they need to allow for the high volume of low-value transactions that poor people engage in. Digital accounts do this very well, cutting transaction costs by as much as 90 percent by removing much of the manpower and overhead associated with traditional accounts. This savings can be passed on to the customer, whose aggregate usage adds up to real profit for the provider. And customers who begin with simple money-in, money-out accounts can slowly but surely build equity and trust, making them eligible for loans and other financial products that are more valuable both to them and the provider.

It all begins with products that are fitted to what people need now. Deaton made it clear that if we can fully grasp how poor people use their limited assets, then we can provide structures and services that fit and actually improve how they live. We encourage banks and everyone else building tomorrow's economy to use what he's taught us to make that economy one that includes and benefits everyone.

Harvard Business Review

MOBILE PHONES PROMISE TO BRING BANKING TO THE WORLD'S POOREST

Rodger Voorhies, director, Financial Services for the Poor team, The Bill & Melinda Gates Foundation

The rapid proliferation of mobile platforms and the digital services that move across them are transforming the world in countless ways. Overnight, these technologies create billionaires and business models so beautifully unique and freakishly inspired that we call them "unicorns." But perhaps no segment of the world's population stands to benefit more from this amazing era than the roughly 2.5 billion people around the globe subsisting on less than $2 per day.

For these chronically poor people, many of whom live in rural and remote areas in Sub-Saharan Africa and Southern Asia, financial services and tools have always been little more than a dream. But thanks to the boom in mobile and digital technologies, that dream is becoming a reality. And we're seeing early signs of a promising pathway to financial stability for the world's poorest people.

In a new and soon-to-be-published body of rigorous research — reviewed and summarized by a group of my colleagues from the Bill & Melinda Gates Foundation, as well as scholars from Harvard, MIT, Dartmouth, and Yale — digital financial service innovations delivered over mobile devices are shown to provide the advantages of banking to people who have long been dismissively overlooked as "unbankable." These services include the ability to deposit and withdraw their earnings, transfer money to friends and family, open and manage savings accounts, and insure their businesses. For populations living so far off the economic grid that traditional banks have never considered them as a source of new business, the availability of mobile technology is lifting the bane of cash dependency and opening a door to the mainstream of the global economy.

Consider, for example, a young working mother in the fast-growing mobile market of Pakistan. Because she is paid in cash and conducts all of her transactions in cash, she must travel to pay her bills for medical or child care in person. Doing so requires her to miss work, which taxes her time and strains her already low wages.

Or consider a farmer in Nigeria, another market where mobile is spreading rapidly. A string of healthy harvests over a few years have enabled him to escape poverty. But then a drought hits, and his crops fail. Without any insurance or the ability to receive an infusion of funds to sustain his household, the farmer and his family slip back into poverty.

Every few years, in fact, 10 to 30% of the world's poorest people manage to escape poverty by finding steady work, starting businesses, or improving their agricultural harvests. The bad news, however, is that an equal percentage suffer a setback that plummets them back into the fiscal abyss.

But here's the good news: According to the World Bank, approximately 90% of the world's poor are now covered by a mobile signal. At the same time, digital financial services are quickly emerging in these markets and have the potential to eliminate more than 90% of the cost of traditional banking transactions. These easily accessible and low-cost financial services are not only making banking viable for the world's poor, they are also opening up a massive new market for financial services providers.

Research shows that when poor people are given digital tools, their consumption increases and their lifestyles improve. Digital insurance products help farmers mitigate risk and the uncertain nature of agriculture, research has found, and in places where digital systems were used to transfer government funds to citizens, the government's expenses were reduced and corruption declined. And for women, who in many countries have limited control over their resources, the services have been empowering—providing them with the ability to manage their financial assets with digital tools.

The evidence suggests that many of these financial service innovations are having a positive impact on the well-being of people in these markets. However, some services, such as the well-popularized microcredit financing, designed to grow small businesses, have not worked as well as anticipated. Furthermore, we have learned from reviewing the recent research that when it comes to digital financial tools, a one-size-fits-all approach does not work. Nonetheless, there are key products and innovative models, backed by research, which can serve as templates for continued experimentation.

In Kenya, for example, research found that eliminating enrollment fees for mobile-based savings accounts led to an increase in overall savings among users, and investment levels among financial services vendors increased as well. In Nepal, where female-headed households were offered a no-fee basic account along with a deposit collection service, uptake and usage was high and persistent, with 80% of households still using the account a year later. The savings accounts enabled households to respond better to health emergencies, and they spent 15% more on meat and fish and 20% more on education. Finally, in rural Malawi, where farmers used digital financial services to save more throughout the planting and harvests seasons, the amount of land that they cultivated increased by 7%, while crop output grew by 15%.

Another example is Bangladesh, where a company known as bKash has become one of the world's most well-known mobile money providers. The opportunity is so fertile that the country's national bank is now working on guidelines to encourage and enable new providers of digital financial services to also enter the market.

Likewise, in countries such as Nigeria and Pakistan, national agendas and initiatives are encouraging the private sector to view the unbanked through a new and promising prism—one in which they no longer see interminable poverty, but instead a vast population of future financial service customers.

Mail&Guardian
AFRICA'S BEST READ

COOPERATION BETWEEN MOBILE BANKING PROVIDERS WILL BENEFIT THEM, USERS AND GOVERNMENTS

Ayo Ajayi, director, Africa team at the Bill & Melinda Gates Foundation

Most of the world's mobile money services are based in Africa. In Uganda, Cameroon, Zimbabwe, Guinea and 11 other African nations, more people use digital accounts than traditional banking accounts.

Through digital financial services, Africa's mobile network operators (MNOs) and telecoms have revolutionised our economy. But now is the time to move beyond mobile money and build a fully integrated, fully inclusive digital economy.

The challenge of building something new on this scale is considerable. But if we combine innovative technology with committed collaboration then this is a goal that is very much within reach.

MNOs were in a perfect position to start us down the path. They had distribution models and infrastructure well-suited for reaching people in rural and remote areas, where demand for affordable, accessible financial services is the highest. And they knew from experience that people at the bottom of the economic pyramid should not be overlooked as customers.

After all, millions of poor people were already proving to be productive mobile phone subscribers. As long as fees were low enough, MNOs foresaw that these same people would also make productive consumers of financial services.

And they were right. In the spring of 2015, Kenyans passed more than $29-million through their digital accounts every day, according to the Communications Authority of Kenya. By the year 2020, the mobile money industry in Africa is expected to be worth more than $14-billion, says Ibid.

Without question, African businesses should continue to develop and diversify products and services available to low-income customers. But it's also necessary for the public and private sectors to invest, together, in a digital ecosystem that supports these products, their providers, and their customers.

It starts with regulations. African MNOs and telecoms would not be the mobile money leaders they are today had African governments not made it possible for non-banks to provide financial services. By setting a path for new players to enter the market, regulations set the stage for competition and innovation.

Even with supportive regulations, businesses face technical and other hurdles as they head to market. For this reason, competitors must also be collaborators.

The challenges of building digital and agent networks, ensuring system security, and addressing financial illiteracy are all much more manageable when taken on together. Sharing knowledge and resources will lower the costs of entry for all players and give each one the best shot at success.

One particular form of collaboration is now bearing fruit in Tanzania, Rwanda, and Madagascar. In each of these markets, all mobile money providers are interoperable with each other—meaning, a customer subscribing to one service can transact with customers on any other service. Why would competitors build bridges to each other's products like this? Because interoperability makes the industry as a whole more valuable to customers, which makes them more likely to sign up for accounts and use them regularly: good for customers, good for providers.

Ultimately, this line of collaboration can and should go even further. Banks should be included, so that all financial providers in a country comprise a single, frictionless digital financial system. Merchants and commercial services will have to join the digital ecosystem as well, so that customers can pay for all the things they need in life without using cash.

It is a different world than the one we live in now. And it will take all of us to get there. But in the end, the reason we should intensify our collaboration and investment—and the reason our efforts stand a good chance of succeeding—is that everyone benefits from an economy that includes everyone. Providers benefit from millions of new customers. Governments benefit from more productive and self-sufficient populations. And newly "banked" individuals benefit from secure and convenient tools for saving and spending money.

We are on our way. Every day, digital financial services are more integrated in African lives and economies. Before long, Africa will be more than the home of mobile money. It will be a vibrant and efficient digital economy—and an even brighter example for all the world to follow.

EUROMONEY

HOW FINANCIAL INCLUSION WILL CHANGE THE FACE OF BANKING

Helen Avery

On the River Solimões in the Amazon region, inhabitants of the 11 towns spread along its 1,600 kilometres deposit and withdraw their money on the Voyager V as it sails up and down. Voyager V is Bradesco's floating bank branch. In the fishing village of Mazunte in Mexico, Banamex customers can send money from or deposit it into their accounts at the local convenience store, Oxxo. And in Balogun market in Lagos, Nigeria, female business owners can open savings accounts with Diamond Bank's agents using mobile-phone technology.

This is the new map of banking—expanding geographically into rural areas to serve the hard-to-reach and deepening into urban metropolises to serve the unbanked and the underbanked—and it's only going to spread wider with financial inclusion as the number one priority for the World Bank.

In 2013 World Bank group president Jim Yong Kim issued a call to action to halve the number of the world's unbanked from a staggering 2 billion people to 1 billion by 2020. It has spurred local governments to reassess banking requirements and regulations, and has drawn the attention of philanthropists such as Bill and Melinda Gates. But as Michael Schlein, president and CEO at Accion, the global microfinance and impact investment non-profit group, says: "The issue of bringing 2 billion people out of poverty—if one is at all serious—cannot be answered by government and charity alone. We must harness the capital markets."

Banks are stepping in to answer the call. While responsibility has not been laid at their door, there is an understanding that they need to play a role in the solution. It is the banking system, after all, that appears to have failed a third of the world. As Piyush Gupta, chief executive of Singaporean bank DBS, which has just launched a digital bank in India says: "Banks are realizing that essentially today they need a licence to operate—not just from regulators, but from society. They have to do good."

The argument of the banks regarding their limited role so far—and it is valid—has been simply that serving the unbanked can be unprofitable or too risky. Instead some have made commitments to tackle financial inclusion through microfinance and the philanthropic efforts of their corporate foundations. But this argument is now being turned on its head.

Thanks to advances in financial technology and changes in regulation that allow agent-banking, the challenges of profitability in serving the unbanked have diminished. That changes everything for banks. As Schlein says: "Distances are no longer insurmountable. Transaction sizes are no longer too small. Data can now be used and collected to create credit profiles more easily. All of a sudden banks are saying: 'We now may be able to service this part of the market in a commercially viable way'."

According to a new report released in September from McKinsey Global Institute, an estimated $4.2 trillion in deposits in developing countries could flow into the financial system as digital finance enables many more people to gain access to accounts and shift their savings from informal mechanisms.

Consultancy group Accenture and Care International estimate the unbanked and underbanked in emerging markets offer a $380 billion annual revenue opportunity for those who have the right business models in place.

New providers are already scenting profit to be made from those customers the banks never touched because they lacked the technology to derive margin from handling low-value payments at marginal cost.

Kosta Peric, deputy director of financial services for the poor at the Bill & Melinda Gates Foundation, points out these 2 billion unbanked people can be economically quite active—in fact, often having three or four sources of revenue and transacting multiple times a day.

In developed markets the commercial opportunity may be smaller in scale—Findex estimates around 60 million people in high-income OECD countries to be unbanked—but their inclusion offers the same opportunities to local economies. When individuals have access to checking and savings accounts, their propensity to weather income volatility increases. In addition to helping lift people out of poverty, better financial health can also reduce the strain on local governments and agencies.

As the financial crisis entailed local governments bailing out their domestic banks, there is a heightened pressure (albeit not formally spoken) for banks to now play their role in the growth of local economies. One need only look at the corporate social responsibility or business objectives of large banks like JPMorgan or Citi to see that financial inclusion is a priority. But Susan Lund, partner at McKinsey Global Institute, says it is time for financial inclusion to move from the CSR department and into business lines: "Whether the trillions of dollars in new deposits goes to banks or non-traditional players is up for grabs."

Banks are not the only ones capable of creating a bridge to greater global financial inclusion; mobile network operators and technology firms have already made huge inroads into serving the unbanked.

M-Pesa is the poster child of how financial technology can bring the unbanked into a formal financial services industry. Communications company Safaricom launched the Kenyan mobile money transfer platform in 2007, and its model is simple: because more people in the country have mobile phones than bank accounts, M-Pesa has simply turned the phone into a virtual wallet.

Subscribers can deposit cash at any of M-Pesa's 85,000 agents who serve as 'human ATMs', and who are located in many locations where banks could not afford to have a branch, running their agency as a side-business typically out of their store. Customers can then use their phones to pay bills or transfer the money to another customer, all without having to have a bank account.

Today in a country of 44 million some 70% of adults in Kenya use M-Pesa, making 9 million transactions daily. The success of M-Pesa has also ensured Safaricom is the most profitable company in east and central Africa. This year M-Pesa's revenues grew 27%.

UNBANKED NOT UNBANKABLE

Unsurprisingly it's a model that other mobile network operators are mimicking, not just throughout Africa, but also in countries such as Pakistan. It has also spurred a revolution in agent banking.

“Asian countries wanting to increase financial inclusion have embraced agent-banking and it has completely redefined the rules of distribution,” says Gupta. He points to Bank of China’s mobile-phone offering that has 500,000 agents operating across China helping the bank reach 100 million farmers.

If the aim of the World Bank is to solve world poverty—partly through ensuring people have access to financial services that can help them transact, save and take out loans to grow their business—then mobile technology has shown that a bank account is not necessarily needed. Indeed there are many reasons why the traditional bank account is not the preference of many unbanked.

“Sometimes it is forgotten that many of the unbanked are far from unbankable,” points out Inez Murray, CEO at the Global Banking Alliance for Women. “They just choose not to have a bank account for both demand- and supply-side reasons.”

In some developing countries, she points out, there is a lack of trust where customers have seen banks seize their savings. Elsewhere, such as in India, a survey by McKinsey showed that customers were deterred from going to banks because the minimum balance was too high, and that they did not know which products were suitable for them. In many other regions the unbanked, particularly unbanked women, also complain that they do not feel comfortable entering a bank, that the ID requirements are too onerous to start a bank account, or that bank branches are simply too far away.

> *“Sometimes it is forgotten that many of the unbanked are far from unbankable. They just choose not to have a bank account for both demand- and supply-side reasons”*
>
> *– Inez Murray, CEO at the Global Banking Alliance for Women*

However, what is becoming clear is that by introducing people to financial services via their mobile phones, that mindset is beginning to shift. As people become comfortable with mobile transaction accounts, so too are they becoming more likely to open a bank account—particularly in Africa. In 2006, 80% of the adult population in Kenya worked with cash alone, yet by 2015 (and no doubt due to the introduction of M-Pesa) nearly that same number of Kenyans had made the transition to having either a bank or a mobile account, according to the 2015 FinAccess Survey. About 53% of the country’s population use a bank account now.

Despite the excitement and headlines around mobile network operators and fintech entrepreneurs providing solutions for the unbanked, the data points to quite the opposite. According to the World Bank’s Global Findex database, over 90% of the 721 million new accounts opened between 2011 and 2014 were opened at financial institutions—the vast majority banks, but also credit unions, cooperatives, microfinance institutions and postal banks. Banks are still a preferred choice for the majority of unbanked. The banks just may be required to alter their models.

In Africa the mobile-money solution has not only encouraged the use of bank accounts, it has also given banks the opportunity to create their own similar offerings—often through a partnership.

Safaricom chief executive Bob Collymore says: “Banks are figuring out that M-Pesa is a good companion for them” as it offers “a mechanism for what those banks want to do.” There are 10 African banks that partner with M-Pesa to allow customers to transfer funds from their M-Pesa accounts into their bank accounts. Some of them have also teamed up with M-Pesa to offer loans through its mobile service, such as Kenyan commercial bank KCB.

Equity Bank said in July that it would now allow M-Pesa customers to use its ATMs to withdraw cash using an authorization code and a phone number as a personal identification number. It affords M-Pesa’s users greater liquidity and brings Equity Bank greater revenues, as well as the opportunity to add M-Pesa clients to the bank.

But Equity Bank has not stopped there and is proof that Africa's banks are taking charge when it comes to financial inclusion. Last year the Kenyan bank teamed up with Indian telecommunications company Airtel to launch Equitel in Africa—a payment and mobile virtual network operator that gives customers access to its banking services such as loans, cross-border transfers, insurance and investments through their phones. That could ultimately replace M-Pesa for its own customers.

Equity Group CEO James Mwangi says the hope is that 90% of Kenyans will have access to banking services. For Equity Group there is also a commercial upside. In 2016's half-year results Mwangi said he would not be surprised if in the next three years the bank's cost-to-income ratio drops below 40% due to Equitel's success.

It is entirely likely. Mobile banking means fewer branches per customer, fewer paper statements and fewer loan officers. And mobile technology is moving at such a pace that the price point of banking is dropping even faster than banks expect.

DBS launched its mobile bank offering digibank in India earlier this year. It required smartphones and therefore did not have a natural audience with the lower-income and unbanked population, yet "all of a sudden the cost of a smartphone dropped to Rs2000 (about $4) and the whole game changed," Gupta says.

"As the marginal cost of taking on a new customer is close to zero because we have no bricks and mortar or call centres, and as credit checks can be handled by a robot thanks to India's move to universal identification, we can take on those customers that at one time we could not have afforded to."

But for mobile-phone banking customers to exist there needs to be mobile-phone reception. That basic requirement is encouraging new partnerships between banks and mobile network operators in Latin America.

TROUBLE-SHOOTING

In Peru, Mibanco is the most successful microfinance bank in the country. Its CEO, Percy Urteaga, says, as it reaches saturation in the urban areas of Peru, the long-term strategy of the bank will require accessing rural parts of the country. But given that cellular reception in those regions is poor, even mobile banking will not be a help unless the mobile network operators invest in infrastructure. "We're already in talks with the Peruvian mobile network operators, but we will most likely have to work together if we want to bring microcredit and micro-savings to these hard-to-reach areas," he says.

Driven by the need and desire to reach the unbanked, technology partnerships are now becoming the norm for banks. For microfinance banks, those partnerships are often with fintechs that have developed means of collecting data to build a credit profile of small entrepreneurs.

In rural Kenya microfinance bank Musoni Kenya provides loans to farmers with no formal credit history via their mobile phones thanks to fintech firm FarmDrive. FarmDrive's initiative turns farmers' sales data into a credit profile. First Access is another credit-profile provider that works in parts of Africa with microfinance banks. It uses mobile-phone transactions to determine creditworthiness. Such tie-ups aren't always without their challenges, as microfinancier Finca discovered in Tanzania.

Indeed trouble-shooting is to be expected when the innovations are evolving fast. In China, for example, the entire credit-scoring industry is being overhauled by 2020 in a bid to help banks better provide loans to the unbanked. Last year the central bank cleared 10 companies, including affiliates of social-networking giant Tencent, Ping An Group and Alibaba, to establish consumer credit-rating operations.

Alibaba's offering, Sesame Credit, collects information on 300 million individual users and 37 million small businesses that buy and sell on Alibaba platforms, for example. But critics are concerned that the nature of using social networks could result in credit profiles being informed by morals and relationships.

Aside from fintech, retailers are another new partner for banks in developing countries as they seek to tackle the unbanked. When Bradesco wanted to reach communities along the River Solimões it simply partnered up with a floating supermarket. On board, services to the public are carried out by a Bradesco manager who helps customers open accounts, check bank statements, make withdrawals, deposits and transfers, pay bills, apply for loans, recharge cell phones and obtain a credit card. They can also use an ATM from the Bradesco network, which is connected via satellite.

It's a lucrative partnership. Since adding the bank to the boat in 2009, more than 45,000 checking and saving accounts have been opened, while local economies along the river have developed.

In Mexico, Banamex formed a joint venture with telecoms company América Móvil to create Transfer, a mobile payments operator, and formed distribution partnerships with convenience store networks Oxxo and 7Eleven aimed at the unbanked. Through the Transfer Banamex product, customers can open a Banamex bank account remotely at these locations or through their mobile phones, and access their accounts now in over 20,000 points throughout Mexico.

Since 2012 Transfer Banamex has added more than 2.5 million active customers.

"Those are outlets that potential clients are familiar with, so it gives them an entry point to getting their first bank account," says Bob Annibale, global director of Citi Community Development.

Accenture and Care's report says partnerships will be key for banks that hope to make financial inclusion viable, and points to NGOs as potential partners that can provide access to savings groups and that can support development of suitable responsible products and services.

DEVELOPED ECONOMIES

In developed economies, partnerships are proving just as important in reaching those who have been excluded from traditional financial services. According to the FDIC's latest data, 9.6 million households in the US were unbanked in 2013 (around 17 million adults), and 24.3 million households were underbanked—meaning that they had a bank account but also used alternative financial services like payday lenders outside the banking system. The most common groups of unbanked include low-income individuals and families, those who are less-educated, households headed by women, young adults and immigrants.

One of the biggest challenges for these groups is that the high cost of using alternatives prevents them from saving money and climbing out of poverty. According to the FDIC, a household with a net income of $20,000 may pay as much as $1,200 annually for alternative service fees—substantially more than the expense of a monthly checking account fee.

Financial inclusion therefore is deemed as vital if poverty levels are going to improve in the US—they haven't since 2010 and are worse than in 2007. The latest data from the US Census Bureau puts the poverty rate at 14.8% in 2014 (46.7 million people).

Given the infrastructure and regulation within the US, mobile money is not going to be the (only) solution. Prepaid cards and market lenders have sought successfully to fill some of the gap between the banks and the alternative financial services, but increasingly US banks are taking responsibility.

Some of the nation's largest banks are now offering basic accounts that have low account fees. Citibank, for example, launched Access Account in 2014, Bank of America has Safe Balance, and JPMorgan Chase offers Chase Liquid—all cost between $4.95 and $10 a month and require no minimum balance and allow customers to deposit cheques, pay bills and make withdrawals.

It is through collaborating with partners that banks have been better able to build these products. What's become clear is that making opening an account easy and providing workshops on financial literacy is not an effective strategy anymore, says Colleen Briggs, head of financial capability initiatives within global philanthropy at JPMorgan Chase. "Financial information has to be relevant and paired with a product that is immediately useful and that can foster continued engagement. This is bringing financial services together with behavioural scientists and design firms to ensure that products are designed to meet the needs of consumers and ultimately promote better financial behaviours."

SELF-REPORTED-BARRIERS-TO-USE-OF-AN-ACCOUNT-AT-A-FINANCIAL-INSTITUTION

It has also brought US banks together with local communities in the same ways that banks in emerging markets are working with local NGOs. "Local non-profits can help tell us where the gaps are," says Briggs. "They are there in those communities working with consumers operating outside of the formal financial system. We learned, for example, how product enhancements, such as online bill payments, trusted agent networks or SMS reminders, can increase the use of financial services."

Citi has also made big strides in working with local communities to help reach the unbanked and underbanked. It has gone further than many banks by creating a business line, Citi Inclusive Finance, which works across its businesses in over 40 countries, including the US, to develop commercial support and solutions that advance inclusion. For example, Annibale's business has a programme offering Citi's ATM network to several minority banks and credit unions, enabling more than 300,000 of their customers to access thousands of cash machines. It also works with local community organizations and municipal leaders on expanding financial inclusion by financing start-up initiative Ventanilla de Asesoria Financiera, which provides financial counselling, alongside the Mexican Consulate in New York and the New York City Department of Consumer Affairs Office of Financial Empowerment.

"One third of New Yorkers are foreign-born, and they often arrive without a banking history," says Annibale. "This community can best be supported in a trusted and convenient location, like the consulate, by a specialized community organization. So there we work with institutions that target those communities because they can inform us of the most effective way we can be of service to advance financial inclusion."

In Singapore, much of the country's unbanked population (just 4%) is similarly foreign and without a credit history. Gupta says that DBS has targeted the migrant worker community in particular. It has partnered with the Ministry of Manpower and the companies that employ migrant workers to collect know-your-customer (KYC) data, enabling DBS to on-board them more easily as clients—many of whom are unbanked.

In Europe the partnerships differ vastly from country to country and financial inclusion is a tale of two regions. About 5% (17 million) of people in the eurozone are unbanked, according to Findex, while Denmark, Norway, Sweden and Finland have zero unbanked. In central and eastern Europe, however, it is a story more akin to that of Africa and Latin America. Almost 40% of Romania's population is unbanked, for example, which has created an opportunity for M-Pesa. It launched in Romania in 2014, and in Albania last year.

Turkey is another country that would benefit from M-Pesa's agent network model. Some 43% of Turkey's population is unbanked, and some 55% of its women. There have been some bank partnerships that, while not targeting the unbanked, nonetheless offer an alternative point of entry to becoming included. ING Bank and PTT Bank teamed up with Vodafone to offer a prepaid card, while Akbank and Garanti Bank teamed up with Turkcell to offer something similar.

The commercial opportunities for CEE banks are vast, as Alior Bank in Poland demonstrates. It started in 2008, targeting the unbanked in rural areas of Poland, where as many as a third were unbanked. Alior promised them free and easy payments of utility bills. Fast forward eight years and now the bank not only has a partnership with Deutsche Telekom's Polish unit T-Mobile to offer mobile banking in Poland, but also with Deutsche Telekom's Telekom Romania to offer the same service there. It now has some Zl30 billion ($7.66 billion) in assets and is on track to become the fifth-largest bank in Poland.

"We are profitable overall, but there are certainly segments of clients that are loss-making for us. We consider that this is the cost that we have to assume in order to take them through the funnel of financial inclusion" - Percy Urteaga, Mibanco

Cross-sector collaboration is going to play a critical role for banks that want to make long-term progress in financial inclusion, says Louise James of Accenture Development Partnerships, and such partnerships are more likely to produce the results that the World Bank is looking for. Says James: "These partnerships, while helping banks realize commercial benefits, also ensure that new customers are integrated in a way that underpins wider social development and long-term involvement in local commerce."

That's really the key. It's little help to the long-term goals of decreasing world poverty and improving local economies if financial inclusion solutions do not enable their customers to save money or grow their businesses and earn additional income.

Savings products in particular are seen as beneficial. Research funded by JPMorgan Chase at the Urban Institute shows that even a small amount of savings can cushion an income disruption that can stop families from missing housing payments and that can also lower social security pay-outs, providing a win-win for governments and individuals.

Jared Bernstein, a senior fellow at the Center on Budget and Policy Priorities in Washington, and former economic adviser in the Obama presidency, suggests a growth in income of just $3,000 a year to low-income families with children could result in millions of jobs being created down the line. That is really where banks can show their muscle when it comes to financial inclusion. The breadth of products they can offer and the insights from the relationships they have can lead them to work on a long-term strategy.

This year's survey by Accion's Center for Financial Inclusion and the Citi Foundation into the risks of financial inclusion for banks found that strategy (or lack thereof) was ranked the greatest. The Centre for the Study of Financial Innovation's Banana Skins Report showed risk management and change management to be the second- and third-largest risks, above technology.

Mibanco's Urteaga agrees that strategy is the most important factor for any financial institution looking to reach out to the unbanked. "Without that you cannot even begin to look at developing fintech or forming partnerships, because you would very easily start working with the wrong companies."

Mibanco adds 10,000 unbanked entrepreneurs every month, in part due a very traditional strategy of incentivizing its loan officers to add clients each month. It also recently added a micro-savings product.

But while Mibanco is profitable, he admits that the business model is highly people-intensive and branch-reliant, and is not reaching the further 2 million SMEs that are in need of banking. "We have been working hard to redefine our strategy, and approach it from a short-term view and long-term view."

In the short term, Urteaga says the focus is on improving the current model. "So, do we need to push the electronic wallet? Do we need to segment clients? Do we need to think about forming a network of alliances? Should we look at creating digital-only products like e-savings or micro-insurance? And how can we digitize processes with biometrics or using social-media data?" As a result, Mibanco has met fintech entrepreneurs to discuss credit-scoring alternatives and mobile-phone loan applications.

Over the long-term, however, strategy becomes more about challenging the current business model. "Can we make microfinance without credit officers?" asks Urteaga. "Or without branches? We are working with innovation consultancy firms to build out future scenarios, as well as being in talks with regional telecoms companies. There's a lot of talk and excitement about fintech, but a strategy has to come first."

Indeed one reason why CSFI Banana Skins' respondents said strategy was the biggest risk was concern that some financial institutions were jumping into fintech without having analysed whether or not the technology was suitable for their proposed audience.

Another concern they have about strategy is that a focus on commercial gain would mean that banks might actually undermine financial inclusion by leaving out the most vulnerable populations as they come under pressure to make money.

In Accenture and Care's study, 40% of the banks in emerging markets it surveyed said their financial inclusion efforts were driven by short-term profits, focusing on commercial opportunities in specific financial inclusion segments. Only 23% of banks surveyed had financial inclusion as part of a coherent corporate strategy leading to long-term, sustainable investment plans to develop inclusive business models.

Urteaga says that any financial inclusion strategy has to make room for customers that are not commercially viable as well. "We are profitable overall, but there are certainly segments of clients that are loss-making for us. We consider that this is the cost that we have to assume in order to take them through the funnel of financial inclusion. But of course, if we are able to define a more efficient business model it would be better for both them and us."

> *"The issue of bringing 2 billion people out of poverty—if one is at all serious—cannot be answered by government and charity alone. We must harness the capital markets"*
>
> *– Michael Schlein, Accion*

It's hard not to get caught up in the short-term lure of profit-making from new clients when $380 billion annually is on the table, but banks stand to make far more than short-term gains by getting their financial inclusion strategies right. Firstly it lowers the cost of all customers as the cheap cost of the unbanked spreads over a larger client base.

Secondly, as banks expand the number of their customers, they automatically become more attractive to potential partners within the ecosystem. "Volume helps when negotiating," says Gupta. "Thirdly, with more customers comes more data, so the opportunity to create products or services arises."

Briggs at JPMorgan Chase says: "With anonymized digital payment data, we have insights into the financial lives of consumers in a way we never have before. It can entirely change the way we think about serving consumers operating outside of the formal financial system."

Serving the unbanked can also bring value to corporate clients. Says Gupta: "Most of the migrant workers are employed by large corporates in Singapore, who are our clients. For those it is often a huge challenge to work out how they will pay those workers and how they will look after them. That we have a low-cost safe and secure process now for those workers is a blessing to them."

Finally, if financial inclusion means less poverty and stronger local economies, then that means better business for banks.

Above all, it is the local banks that are in the best position to shine… if they are happy to reimagine their models.

"While the global banks have the scale and ability to create the technology, their motivation is not as strong and the KYC challenges of their own regulators are an obstacle," says Gupta. Domestic banks on the other hand, he says, are being encouraged by their local governments and have a greater focus on the region and the types of partnerships that will be necessary in adapting their model.

Will banks be able to compete against the likes of M-Pesa or Alibaba's mobile payments platform and therefore keep products commercially viable? In developed economies that threat is far smaller. Gupta is hopeful that, even in emerging markets regions where banks have been long established, they will. "Some of the telecoms companies in India are now trying to partner with banks because they realize it will be easier than creating their own payments bank. If the banks are smart, they will also aim to create better clearing and settlement products than the non-banks."

Banks also have a funding advantage by having access to low-cost deposits, and, other than in Africa where the banking system is underdeveloped, they also have the benefits of scale and distribution. And the strength of banks lies in the fact that people trust them. "If you live somewhere rural, you may prefer to know your money is with a bank rather than a social media or technology company," says Gupta.

While banks and non-banks may be rushing into financial inclusion reform however, there is a long way to go. Many more partnerships will have to be developed before the World Bank's goal is reached.

Accion's Schlein says that the hundreds of millions of new bank accounts that have been created in recent years are often not being used. "We've tended to look at financial inclusion from a top-down viewpoint, that by converting payments away from cash and sending them digitally into a bank account, somehow the previously unbanked will start using that account and other products more frequently."

Instead what has happened, says Schlein, is that the recipients simply cash out and go back to living in a cash world until the next payment. "If we really want to ensure that the unbanked are coming fully into a system that can support their growth, then we need collectively to work on how to engage activity more and to build the financial tools that work for them."

In India for example, bank account penetration increased from 35% to 53% between 2011 and 2014, but data showed 43% of all bank accounts to be dormant. That led to the State Bank of India changing tactics. Says Schlein: "The bank led a major effort to encourage the utilization of the newly opened accounts. In 18 months, we have seen zero account balances fall from 90% to 40%."

Gupta also says that there needs to be collective rethinking about customer data if there is to be a better service for those who lack traditional credit or identification information. "The current way we operate is inefficient," he says. "We wind up duplicating data checks—with utilities running their checks, banks running theirs, auto lenders theirs and so on. If we could create an intelligent data depository and/or use third-party algorithms to better identify potential clients then this would change our efforts towards global financial inclusion substantially."

The collective effort required has not gone unnoticed by the World Bank's Kim. He is calling for "country-led targets and reforms; the use of technology, innovation and data to transform business models; and public- and private-sector initiatives to rapidly expand access to financial services" to meet his group's goal.

Whether or not his target is hit in 2020, the impact of the agenda has clearly already been felt, and it is changing the face of banking for ever.

The Banker

A BRAVE NEW WORLD OF MOBILE MONEY

Joy Macknight

While mobile money usage has been gradually ramping up over the years, interoperability, alongside cheap and ubiquitous smartphones, has the potential to kick it up a gear. Joy Macknight reports.

Mobile money's potential to bring into the folds of the formal financial system more than 2 billion unbanked individuals—38% of the world's adults—is phenomenal. Developing countries and emerging markets will derive a gamut of well-documented benefits from financial inclusion, from economic growth to social wellbeing.

According to the Groupe Spéciale Mobile Association's (GSMA's) 2015 state-of-the-industry report, mobile money is now available in 85% of countries where the vast majority of the population lacks access to a traditional financial institution. At least 19 markets have more mobile money accounts than bank accounts.

DOUBLE CHALLENGE

Importantly, regulators across the world have taken great strides towards creating an open and level playing field for mobile money service providers—51 of 93 countries have an enabling regulatory framework, according to the GSMA. Previously considered to be the key obstacle to adoption, other barriers have now come to the fore, including two interconnected challenges: industry collaboration and interoperability; and developing compelling use and business cases.

"In markets where mobile money is not yet available, low investment due to the lack of a strong business case is one of the primary obstacles to launching new services," says Jorn Lambert, executive vice-president, digital channels and regions, at MasterCard. "If the market size is small or the use case is not compelling for consumers, it's harder for a mobile money service provider to achieve scale and profitability, making it less attractive to mobile operators and banks to invest in mobile money.

"Even where mobile money services are available, they often have limited utility due to a closed loop set up. To make these truly relevant to the consumers, we need to aim for global interoperability, and offer mobile payment services that permit multiple use cases, including in-store, peer-to-peer [P2P] and online payment."

THE POWER OF COLLABORATION

Interoperability is not only critical for building scale but also fostering competition, which makes mobile money solutions cheaper for the end consumer. Mr Lambert believes that the benefits of interoperability are becoming more evident. “There is a growing interest in leveraging interoperable solutions, which will strengthen the business case and improve the customer experience by making it easier for consumers and businesses to send money across networks,” he says.

Tanzania is a good example of the benefits interoperability can deliver. While most highlight the success of Kenya’s mobile money flagship, the M-Pesa model was built on the dominant market share of a single mobile operator, Safaricom. This monopoly provided grounds for Safaricom to make the investment necessary to build a mobile money brand and create an extensive cash in/out agent network, “giving it some certainty that it would recoup the investment”, according to Tilman Ehrbeck, a partner at Omidyar Network, a philanthropic investment firm established in 2004 by eBay founder Pierre Omidyar.

Its southern neighbour took a different approach and fostered interoperability across the three biggest mobile network operators—Tigo, Airtel and Zantel—and is now adding more networks to the agreement. In just over a year, Tanzania is already overtaking Kenya in terms of usage and at a much lower cost. After putting these measures in place, Tanzania saw a 3.5 times increase in the value of off-network transactions, according to a recent report from Better Than Cash Alliance (BTCA)—a global partnership of businesses, governments, international organisations and philanthropic foundations promoting the use of digital payments—entitled ‘Accelerators to an inclusive digital payments ecosystem’.

“[Tanzania] is positive proof that interoperable rails will tremendously enhance the reach and adoption of mobile money,” says Kosta Peric, deputy director, level one digital payment systems, at the Financial Services for the Poor initiative of the Bill & Melinda Gates Foundation.

CROSSING BORDERS

The mobile network operators (MNOs) are now collaborating on cross-border remittance corridors between Tanzania and Rwanda. “Interoperability at an international level could have huge implications for increasing efficiency in international trade,” says Camilo Tellez, head of research at BTCA. “The pot is getting bigger and players can take advantage of economies of scale in digital financial products across borders.”

Whereas the Tanzanian model is MNO-led, in Latin America Peru took a different path to interoperability. The Peruvian banking association (Asbanc) collaborated to create a shared infrastructure and then invited the MNOs to participate. Earlier in 2016 Pagos Digitales Peruanos, a company set up by Asbanc, went live with Bim, a mobile payments platform.

Francesco Burelli, managing director of payments strategy at consultancy Accenture Payment Services, believes Peru is a good example of “a whole ecosystem coming together for a specific purpose with a solution that looks well designed for the scope that it is intended for”.

He adds: “When the adoption increases and the use cases become more sophisticated, then ‘Modelo Peru’ will need to evolve its mobile money capabilities. But for the time being this solution is well designed to support not only financial inclusion but also the electronification of payments and savings, and potentially faster economic growth within segments of Peruvian society.”

A few pieces still have to fall in place, such as delivering financial education and extending the user cases beyond P2P, but Mr Burelli has little doubt that Peru, with the proper support and skills, will “become an interesting study for the evolution of this industry”.

INITIATIVES IN ASIA

Like Peru, Pakistan follows a bank-led model, but very early on the regulators allowed for collaboration between banks and MNOs. Three of the five telecom operators in the Pakistani market have acquired either majority or 100% shares in microfinance banks in order to have more control over mobile money products and services, the GSMA reports. For example, Tameer Microfinance Bank, in which Norway's Telenor has a majority stake, is one of the country's biggest mobile money providers. "Of the MNOs, Telenor is one of the most committed with operations in Pakistan, Bangladesh and more recently Myanmar," says Mr Ehrbeck.

He believes that the old definition of a bank- or telco-led initiative is a little misleading because mixed forms have always existed, depending on the regulatory environment. "Telenor acquired a bank in Pakistan, while bKash in Bangladesh is majority-owned by Brac Bank, so it operates under a banking licence but with an independent telco mindset," he says.

Myanmar is a unique case. When the country began opening up in 2013, its regulators took a decision to include mobile money in the country's mobile telephony licensing process. It required international providers, Telenor and Qatar-based Ooredoo, as well as the incumbent Myanmar Posts and Telecommunications, to launch mobile money offerings within a year of operation. The country leapfrogged into the 3G world, importing cheap smartphones from China and receiving good advice from the international development community about best practices in mobile money.

Mr Ehrbeck says: "Myanmar is the first and only country where mobile telephony and mobile money are being introduced almost at the same time. Mobile money regulation passed in April this year and by all accounts service is being taken up rapidly."

ALL EYES ON INDIA

Many believe, however, that India may be the next frontier in mobile money. While initially the Reserve Bank of India (RBI), the country's central bank, had concerns about letting MNOs become e-money issuers, under previous RBI governor, Raghuram Rajan, it decided to redefine what constitutes a bank. In August 2015, it introduced a payment bank licence, which opens the door for MNOs to become regulated financial services providers.

In addition to the new licences, the Indian government is creating a new digital infrastructure, called 'India Stack', which is a complete set of application programming interfaces and builds on the unique biometric identity system Aadhaar.

To date approximately 1 billion people are registered with Aadhaar using an iris scan. The regulators, including RBI and Securities and Exchange Board of India, allow the Aadhaar identity system to be used for authentication.

India is now working on a digital signature layer. In addition, the National Payments Corporation of India launched a uniform payment interface, which allows any account-to-account transactions at a low cost.

"India is pulling together a digital infrastructure—e-know your customer, e-signature, payment interface—that will dramatically accelerate the development of highly appropriate, tailored and far lower cost financial services," says Mr Ehrbeck.

FINDING THE KILLER APPS

Despite these important advances—and a 31% global increase in registered mobile money accounts, according to GSMA—many markets are still struggling to move mobile money beyond P2P payments and remittances. Identifying use cases that address real consumer needs must now be a priority, according to Greta Bull, CEO of Consultative Group to Assist the Poor (CGAP), a global partnership of 34 organisations that seek to advance financial inclusion.

"The industry is asking people to move from something they are comfortable using—cash—to something that is far less intuitive and can come across as intimidating to those not accustomed to using bank accounts or technology," she says. "It is important to understand what low-income and mass-market consumers want, and how they interact with technology should be a priority for all mobile money providers." She believes that design features need to be improved so that they are more intuitive, user friendly and transparent.

"The big question is how to convince people, who are used to using cash for their daily and monthly transactions, or have informal loans or savings, to trust that a mobile initiative will be substantially more efficient, cheaper, accessible and safer," says Fernando de Olloqui, a financial markets lead specialist Inter-American Development Bank. "However, if you give them a value proposal, then they will switch." He gives the example of a small shopkeeper paying an electricity bill electronically, instead of closing the shop for two hours to pay the bill in person.

Mr Burelli stresses the need for education to change consumer behaviour to the point where mobile money is seen as a viable alternative to cash and an opportunity to store money electronically, instead of just being a channel for remittance or basic payments. "Mobile money is a great tool but from there to a cashless society is a long way," he says.

NEW BUSINESS MODELS

Looking at it from the business case perspective, Mr Tellez argues that countries should shift to developing a regulatory framework for second-generation services that encourages innovation but also protects consumers. "We are starting to see some markets move from the initial use case, which was basically P2P domestic remittances, towards a new generation of products, such as insurance, savings and credit, as well as some fintechs that are starting to plug into mobile money platforms."

While third parties, whether start-ups or arms of the MNOs or banks, are starting to take advantage of the data emerging out of platforms, unbundling services and creating new products, Mr Tellez believes that the regulatory frameworks are not developed enough to allow for a fully flourishing ecosystem.

In spite of these impediments, mobile money is clearly fostering new business models. Omidyar Network's Mr Ehrbeck provides two examples.

The first is using data for underwriting loans. "There are probably 1 billion people in emerging markets who don't have a credit score because they don't have regular employment, etc. But they do have a digital footprint, for example cell phone usage, mobile money or payments history, and if they have smartphone, then they have a search history," he says.

"This information, if available, has power from a credit underwriting perspective. For example, the number of unique incoming calls can be used as an indication of the individual's social network strength, which is an indicator of creditworthiness."

Omidyar Network has invested in companies such as Lenddo, which started with social media data; others generate data and, for example, use psychometric testing in a small business lending context. The firm published a report, 'Big data, small credit', earlier in 2016, which takes an in-depth look at technology companies that are disrupting the credit scoring business in emerging markets.

Savings and investment is the second area where Mr Ehrbeck believes digital connectivity and mobile money are enabling new business models. Omidyar Network has also invested in Scripbox, one of India's fastest growing investment services. "Almost 70% of its clients are first-time investors, the aspiring Indian middle class," says Mr Ehrbeck.

ENCOURAGING INNOVATION

Both examples illustrate how the intersection between mobile money and new entrants, such as fintech start-ups, is creating a new space for innovation. "Fintech is influencing mobile money by realising what could be done with the available transactional data," says Harish Natarajan, senior payment systems specialist, finance and markets, at the World Bank. "This opens up potentially new revenue streams and that in itself becomes a reason to be in this space."

In addition, new payments players are finding ways to provide remittances services at much lower cost than traditional providers. "There are many different ways that fintech providers are engaging in the mobile money space, and they are making it a much richer ecosystem," adds Ms Bull.

Mobile money is also encouraging new partnerships between traditional financial institutions and fintechs. For example, Finca, a microfinance institution, recently partnered with a Pakistan-based fintech called Finja to increase financial inclusion in the country through a 'fully strapped' mobile wallet with savings and other services beyond payments such as loans. "Customers can do all their bank transactions remotely, even account opening," says Rupert Scofield, the co-CEO at Finca.

Finca has signed up 5000 retailers in Pakistan who are willing to accept payments via the mobile wallet. It has completed the first pilot with 1200 employees and plans to roll out the product to the first 5000 customers in October.

SMARTPHONE UBIQUITY

All indications suggest that the competitive landscape in mobile money is facing another seismic change as the mass migration to smartphones—and the global move to 3G and beyond—continues.

"With smartphone access to broadband and Wi-Fi, a new set of players can enter the market, for example Alibaba and Alipay—they will change the dynamics," says Sacha Polverini, chairman of the UN's International Telecommunication Union focus group on digital financial services.

BTCA's Mr Tellez highlights a shift in mobile money with the emergence of payments over social messaging platforms, such as WeChat which has 600 million customers. "People can perform myriad transactions on these platforms, from purchasing insurance to ordering food, shopping online, sending money to friends or buying stocks—all through one app without leaving the platform."

Additionally, Mr Polverini expects the overall user experience to improve on a smartphone, which may solve the interface design issues raised by CGAP's Ms Bull. "There are more graphics and it is more intuitive than the current menu. The interface and speed of the transaction will be totally different," he says.

Ms Bull agrees. "Not only do smartphones bypass challenges with the unstructured supplementary service data channel normally used by mobile money providers, but they are also more intuitive for customers and offer a platform where innovators can build apps that meet the needs of the markets they are trying to serve.

"There is so much interesting innovation going on, it is an exciting time to be in the mobile financial services space."