Getting Infrastructure Right for Financial Inclusion

The last 10 years have seen soaring successes and unfortunate failures. What’s worked in the past gives key hints for future progress.

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The world is being dramatically transformed by technology such that the digital revolution includes everyone. This is a radical change from the industrial revolution, where only those rich enough to cover the costs of physical service could be included. In a digital world, digital service is cheap, fast and global. This is the transformation we see happening right before our eyes. Have you noticed?

Until recently, only one-third of people living on earth had a bank account. Two-thirds of humanity were excluded from financial services. The result of this inequality is that, for those who were unbanked, they had to pay more for any financial service as a percentage of their transactions. Then, in 2007, Vodafone’s subsidiary Safaricom launched M-Pesa in Kenya, and the world changed. Not only was M-Pesa a roaring success, but its concept was copied in most countries across Africa, Asia and South America. I say concept because M-Pesa itself has failed to repeat its success in other countries. This is a reflection of the reach, breadth and depth that a mobile operator needs to make such services work, and is why Orange dominates the mobile money market in Mali and EcoCash in Zimbabwe.

More on this later. But the concept is the same across all nations: use the mobile phone to move money.

This is a wonderful change we see in the world. We see the sudden rise of the poorest people in places mobile financial inclusion touches. Now, people in areas decimated by drought can get micro-insurance services to enable them to avoid starvation; people in the remotest areas can get micro-loans to start new businesses; and people with no accessible physical financial services can save their money safely and easily through micro-savings.

All of this is driven by the mobile telephone revolution, and is best illustrated by Alipay, the Chinese mobile money giant. In 2013, China had no mobile money system as such; five years later, the Chinese transact over $15 trillion a year via Alipay and WeChat Pay. Based upon this success, Alipay is exporting their expertise, technologies and capabilities to other countries where financial inclusion is a priority: Indonesia, the Philippines, Pakistan, Thailand and more. In fact, if you didn’t know it, Alipay is the backbone partner of PayTM, the Indian mobile wallet that aims to bank 500 million Indian citizens by 2020.

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This is the core change taking place, but what is it that Alipay got right and M-Pesa got wrong? Why can Alipay power financial inclusion in so many countries, but M-Pesa cannot? What is the right infrastructure play for financial inclusion, and what are the mistakes that are made?

**The Four Big Aspects of Success**

Having written several books about mobile financial inclusion, my takeaway is that there are political, economic, social and technological aspects that must come together to get a successful roll-out of financial inclusion.

For example, when M-Pesa was launched, it had the support of the Kenyan government and central bank (political), it was launched in a country where 90 percent of citizens had no financial service (economic), but with a real need to move money safely and easily between cities and villages (social), and with a technology that was just coming of age to do this: a 2G mobile network (technological). However, if you look at M-Pesa’s attempt to launch in other countries, it has only succeeded where similar circumstances exist, such as in Afghanistan. Where one of these factors falls down, such as in India, where almost half the population has access to financial services, it has failed.

However, M-Pesa failed in India whilst PayTM is succeeding. Why?

It is a strange phenomenon, as Vodafone had all the right ingredients for success in India with major bank partnerships (ICICI Bank and HDFC), and an existing mobile subscriber base of almost 200 million users. However, several ingredients were missing: a supportive government, an economic and social market need and the right infrastructure.

In Kenya, M-Pesa’s infrastructure largely relies on agents providing the mobile network with cash-in and cash-out services. In India, building a high-density network of humans to support transactions proved a major overhead, with Vodafone hiring almost 100,000 sales agents to get the service going.

In Kenya, the government helped launch M-Pesa but in India, the government already had its own service going: the Unified Payments Interface (UPI). Equally, the structure for mobile payments was based on GSM’s Unstructured Supplementary Service Data (USSD) technology, which is expensive in India. For example, a text message costs 0.15 rupees, but USSD sessions cost up to 1.5 rupees (USD$0.02). When the average annual household income in rural areas is 5,000 rupees, using USSD at those rates is undesirable.
The big difference with PayTM is that it’s using Quick Response (QR) codes, which is cheap for the merchant, as it requires no new technologies. No agent network is required. And no special set-up is needed to get the service up and running.

Equally, PayTM is supported not just by Alipay’s technologies but by the money of Alipay’s Chinese visionary, Jack Ma. Alibaba own over a third of PayTM’s equity and have regularly supported their funding rounds, investing $680 million in 2015 and more since.

PayTM also benefited from the Indian government activities around UPI and demonetization. When Prime Minister Narendra Modi announced his demonetization initiative, which eradicated the use of 500 and 1,000-rupee banknotes in November 2016, a massive blitz of advertising for PayTM followed. This led to adoption rates exploding from just over 125 million users before demonetization to 280 million a year later (November 2017).

PayTM has also been designed to exploit the government’s India Stack. The India Stack combines many elements from a digital identity scheme (Aadhaar) to a standardised real-time payment system (UPI). It turns out that PayTM is the most used service on UPI, processing around 40 percent of all transactions on the platform in February 2018.

This all leads to the key lessons learnt from both M-Pesa and PayTM:

• **Political.** Both services work with government-sponsored initiatives and, if they don’t – as M-Pesa discovered in India – they fail.

• **Economic.** The service needs to appeal to the country’s structure and an agent-based services worked in Kenya, where most of the population was unbanked, but failed in India where far more citizens are banked; PayTM tapped into the demonetization moment.

• **Social.** The key thing about M-Pesa’s success in Kenya is that people are nervous about moving cash, as it can easily be lost or stolen; in India, the fact that people had to move to being cashless through the force of government made the difference.

• **Technological.** SMS text payments and 2G services worked in 2007, when that technology was at its peak but, ten years later, mobile internet and QR-codes make much more sense for both merchant and consumer.
A Giant Ant

There’s a final key ingredient that is missing here, however, and is clear from the vision and involvement of Alipay, Alibaba and Jack Ma in PayTM. Alipay and their parent firm, Ant Financial, have a vision of two billion users by 2025. They are already well on their way towards this number from their expansion outside China, and the vision is driven by financial inclusion.

The Ant program is a mix of several factors.

First, investment. As mentioned, Alibaba has significantly invested in PayTM, as well as their other partnerships with Mynt in the Philippines, Easypaisa in Pakistan, Emtek in Indonesia, B-Kash in Bangladesh and Ascent in Thailand.

Second, experience. In the examples given above, we can see that all of them are benefitting from Ant Financial’s experiences with making Alipay a success in China.

Third, technology. In particular, the ease of the QR payments system and the benefits it can offer both merchant and consumers is a killer app. For example, the merchants can make dynamic offers to consumers when they are nearby in real time, and take payments with just a code on a piece of paper. A consumer can make payments easily in an app and get discounts and offers that are relevant to them there and then. It’s a win-win for both the merchant and consumer.

But it is more than that. The most important factor Ant Financial brings is technology capabilities and vision. Ant Financial is first and foremost a technology company that happens to deal with money, and they have developed an amazing array of open financial technology capabilities over the past 15 years. Their platforms can already process over 250,000 transactions per second – Visa globally processes 2,000 per second on average – and they have created a complete marketplace of open financial application programming interface (API) used by many Chinese banks and offered to all of their partners as a technology platform they can use if they want. Vodafone, by contrast, has good capabilities to provide text payments, but lacks a broader concept for using technology to develop a multi-player marketplace.
4 + 4 Success Factors

These four factors – investment, experience, technology and capabilities – combined with the other four factors – political support, an appropriate economic climate, social need and technology innovation – are the real ingredients that create the right infrastructure for financial inclusion.

Without the right breadth and depth of experience and funding, it fails. Without the right breadth and depth of government support and customer need, it fails. With all those factors together, it succeeds.

This is why many of the most successful examples of financial inclusion are not a mobile network operator or technology company working alone, but a complete ecosystem of players from governments to technology firms to fintech startups to telecoms firms working together to make it happen. For example, when GCash began in the Philippines, it was a stand-alone telecom offer by Global Telecom. It struggled for nearly a decade, until recently a partnership with Ant Financial has turbocharged the offering and it is proving far more successful.

I have personally seen many attempts to create infrastructure for financial inclusion. For every success, there are multiple failures, but the key to success is having all the players cooperate. Financial inclusion requires an ecosystem of all to make it happen.

The more that governments prioritize inclusion, technology firms deliver the capabilities, and mobile operators provide the reach, the more success we shall see in getting the two-thirds of humans on earth capable of succeeding in the future when, historically, the system has let them down.
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