Fintech and the demand side challenge in financial inclusion

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There is a push for digitizing payments across the board in India. This has picked up steam after the demonetization of large currency notes in November 2016. But how ready and willing are low-income Indians (as well as low-income people in other developing countries) to adopt digital payments? This question needs more thought as there is a range of issues around mobile phone penetration, bank account features, acceptance of digital payments across value chains, and the viability of small transactions.

Keywords: financial inclusion, fintech, digital literacy

Oh sir, this Modi ji's approach is all very well but many people here don't even know how to dial a number on a mobile phone. (low-income artisan's response to a question about the use of digital services after demonetization)

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THE REALITY OF THE SUPPOSEDLY massive potential of fintech (technology for finance) to enable financial inclusion in India is that the numbers are potentially misleading. The telecom regulator in India announced that the mobile subscriber base in the country had increased to nearly 1.2 billion by the end of February 2017 (*The Indian Express*, 2017). But did they mean subscribers or did they mean subscriptions? It is apparent from casual observation (since there is no reliable data on this matter) that many affluent families have from three to eight subscriptions for just four members; this is apparent from observation of people pulling out three mobile phones from their pockets in airport security queues. Thus, if 300 million people have an average of two subscriptions and another 300 million average just one subscription, how many mobile phone subscriptions does that leave for the remaining 680 million Indians?

Recent work by M-CRIL in Uttar Pradesh and Bihar, two of India's largest and poorest states, shows that no more than 40–50 per cent of rural low-income families have mobile phones; when they have these, the phone is in the possession of the male head of the family and women have little or no access. Invariably, the mobile phones they do have are traditional, \$10 feature phones, covered in dust and with tiny, scratched screens that have barely visible displays. Consider the situation even of an urban Delhi *mali* (gardener) faced with demonetization, unable to accept his monthly wages by bank transfer because the queues at the bank (at the time) made it impossible for him to withdraw money, while his traditional feature phone was useless for making payments for purchases. This is the

urban worker, whose situation a rural woman might actually envy because he could at least leverage his contacts with better off peers or employers to manage somehow when his cash was suddenly rendered useless by government decree. (Feature phones are the small screen predecessors to 'smartphones'. Feature phones cannot connect to the internet and use the outdated unstructured service supplementary data (USSD) protocol to send messages.)

Ever since the demonetization debacle in India broke in November 2016, much has been written about the boost it has given to the fintech economy. When observers made some noise, at the time, about the exclusion of the 700 million or so feature phone users from the supposedly incentivized digital economy, the USSD-enabled Bharat Interface for Money (BHIM) app was launched suddenly without adequate testing nor adequate public information. A few front-page advertisements in national newspapers and a limited season of radio spots were provided for public education. It would be interesting to see data from the telecom companies, if they have it, of the use of feature phones to conduct financial transactions. We guess that the number will turn out to be a minuscule proportion of the total number of mobile phone-enabled transactions.

In practice, the proportion of mobile phone-enabled transactions undertaken by feature phones will always remain small so long as their use for USSD-enabled financial transactions requires a complex set of entries, responses, and confirmations. Let's be clear, such actions require a level of numeracy and literacy that India's sadly neglected education system has failed to generate among the very people who are financially excluded and use these low-cost devices.

Oddly, the international debate on the use of mobile phones for financial transactions has treated mobile phone technology as amorphous, focusing exclusively on the provision of banking services through mobile phones without considering which services can be delivered with which type of phone. Though in a recent paper Aveni and Roest (2017) make a passing reference to the need for a bank account and a smartphone with an internet connection as prerequisites for 'reaching rural users', they do not discuss the prevalence rate of such conditions in lauding the supply of internet-enabled payment services in China. Similarly, the Alliance for Financial Inclusion website (AFI, n.d.) suggests that digital financial services expand the delivery of basic financial services to the poor without any reference to the technology challenges faced by the poorest members of society.

It will, in fact, take a substantial effort at digital literacy to universalize the digitization of transactions, as the M-CRIL team found during their work in March–April 2017 when designing and delivering training programmes on digital payments for 23 artisan clusters covering over 1,000 artisans – both women and men – in Bihar. (Artisan clusters refer to a group of people practising a certain art or craft that is specific to an area, for example, Madhubani paintings.) The telling remark in the opening quote was reinforced by feedback such as:

My business turnover is small. Phones cost money as does running them.

Our account features (the famous Jan Dhan Yojana, no-frills account) do not allow for a debit card.

To be able to use the most basic form of digital payment, USSD (banking transactions using a feature phone and no internet), a user needs to have a debit card in addition to a phone – only 15 per cent of artisans covered in the M-CRIL programme reported having a debit card. Digital payments are no good for artisans when others in their value chain (suppliers and traders) will not accept this form of payment: 'You are explaining this to me, but who is going to convince my supplier?' M-CRIL managed to include suppliers and traders in some of its trainings, but clearly more targeted trainings are needed. 'My turnover is INR 20,000 (\$300) per month and after all expenses, I get about INR 5,000 to 6,000 per month in hand. Why should I use digital payments for such small amounts?'

We had to present use cases for digital payments that were customized for our target group. There were some who were too scared to adopt digital payments for fear of making mistakes while undertaking a digital transaction: 'What if I press a wrong button? Will it wipe off all the money in my account?'

While it is important to push for digital payments and educating people in using these, it is not as simple as walking into a village and telling the community why they should go digital. A lot more thought and a nuanced approach is required for promoting digital finance. Even where digital finance has been introduced by small banks and microfinance institutions (MFIs), there are multiple concerns. It is exciting to see an elderly woman approach a small finance bank fintech kiosk and put her thumb on a device which captures her biometric details, enabling the system to access the details of the bank account in which she receives her monthly grants as well as providing her credit history. As a result, the bank automatically creates an auto debit mandate on her bank account to which a loan is credited in under 10 minutes. In theory, she can then use her card to withdraw a part of the loan amount from the nearby ATM. However, rarely does she know that by putting her thumb on the device, she has given multiple consents including an authorization to create an auto debit instruction on her bank account.

A quick emergency loan from formal sources is often unavailable and is the main reason for borrowers' dependence upon informal moneylenders. In theory, digital finance provides a fantastic service which a conventional formal lender cannot match. It is not surprising that the digital finance industry is growing, and more disruptive models and niche digital finance products are emerging. But, alongside growth, there is a need to establish standards to ensure that services are responsible, and clients are treated fairly.

M-CRIL's risk diagnostics and assessments, undertaken through multiple assignments, of the client protection measures in programmes that provide digital financial services in more than 10 countries in Africa, in China as well as in India show that there are fundamental concerns on client protection and risk management in digital finance. These raise the following questions:

- How is transparency maintained with clients on basic terms and conditions (T&Cs) of the loan or payments? The T&Cs are often communicated on the client's mobile phone; is this enough? And how do we ensure transparency and awareness among clients?
- If the digital lender uses agents for the delivery of the product, who is it that ensures agent training, monitoring and control? If the reliance is on a mobile network operator (MNO), how can the system's robustness and connectivity/uptime be monitored?
- How much influence should a digital lender have over additional fees imposed by third parties?
- How is client data safe when third parties are involved in providing/maintaining software; does the very high reliance on part-time agents compound the dangers posed by the low literacy levels of clients?
- How much control should (and can!) the digital lenders exercise over the MNOs? Are these MNOs trained to handle client grievances? What should be the complaint procedure and escalation mechanism?
- What are sustainable growth levels of digital credit? Since credit appraisal is fully automated and consistently applied, does speed of growth have any limit or maximum 'safe' levels? Credit risk benchmarks in digital lending need to be established. If these are different from traditional microfinance benchmarks, then what justifies the difference?
- Many digital lenders use algorithms and predictive models based on demographic and other such variables to speed up the process of lending to clients without a credit history, and to identify wilful defaulters. When the data is limited or not of good quality, this can lead to discriminatory or weak identification of clients. More research on models and good-quality data sets is needed before credit scoring can be safely and equitably used for credit intermediation.

Therefore, however massive the potential of fintech, its realization will remain a mirage unless a totally different and enlightened level of investment is made to promote digital literacy and understanding of the digital financial system

among all stakeholders, particularly clients but also value chain enterprises, MNO agents, and lenders themselves. As discussed earlier, at a basic level, both the use of smartphones or the alternative traditional feature phones require functional literacy – the practical ability to read and write – as well as numeracy. Without it, the entire digital infrastructure is useless for serving the financial needs of low-income families. Educated Indians and no doubt well-educated people in other emerging economies pride themselves in their access to hardware and their sophistication with software; all manner of supply side solutions exist but, everywhere, the demand side of digital financial inclusion remains largely unaddressed.

What is needed is not the odd few one-day coaching camps among artisans in Bihar, as M-CRIL was commissioned by a leading development bank to deliver in the immediate aftermath of demonetization, but rather a massive effort to generate awareness among the financially excluded about the potential of fintech. What is needed is to transmit not a message about the possibilities of fintech but rather *a few simple practical steps* on the use of feature phones for undertaking financial transactions. This needs to be a sustained effort of repeated communication and demonstrations on a massive scale all over the developing world. Further, it cannot be a one-sided effort where low-income families become familiar with the mechanics of digital transactions on feature phones and then find that the local grocer, nearby health centre, agricultural input supplier, or other value chain actor have neither the functioning hardware nor, indeed, the inclination to accept digital payments. Demonetization in India provided a shock to the system but its ill-preparedness became apparent in its failure to convert that shock into a positive force for development.

The massive effort proposed here would require significant resources and calls for a level of mobilization that is unprecedented. Nevertheless, M-CRIL's small project demonstrated that the digital literacy effort does not require a substantial level of skills on the part of the support institutions, just a commitment of resources, no more perhaps than are wasted on paying a small fraction of the many non-performing schoolteachers in developing countries. The hardware challenge can also be addressed, mostly by a campaign that brings together the telecom companies and financial institutions, who will both gain from a huge increase in the number of transactions. To promote financial inclusion in the world of today, it is not the hardware and software supply that is the bottleneck; the real challenge of fintech is the organizational effort required to stimulate and support the use of services by low-income families; people whose lives could be revolutionized by a practical knowledge and application of digital financial services.

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