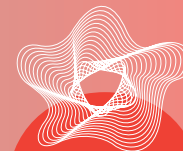


DIGITAL PAYMENT CLIENT UPTAKE

# *Warning Signs*



**IMTFI**

INSTITUTE FOR MONEY, TECHNOLOGY  
& FINANCIAL INCLUSION

JUNE 2013

**Editorial Team**

Bill Maurer, Jenny Fan, Smoki Musaraj, Ivan Small, Taylor Nelms, Beth Reddy, Nathan Dobson

**Researchers and Contributors**

Content a result of collaborative discussions among IMTFI's network of researchers

**Design and Layout**

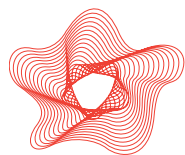
Albert Chu

This study was made possible by The Institute for Money, Technology & Financial Inclusion at the University of California, Irvine

**The Institute for Money, Technology, & Financial Inclusion**

The Institute for Money, Technology and Financial Inclusion (IMTFI) at the University of California, Irvine is devoted to supporting innovative research on the financial lives of the world's poor and marginalized, and the potential for new technologies to change the monetary ecologies in which people seek to make a life for themselves. IMTFI investigates the pros and cons of digital platforms for payment and savings, and tries to show how the experiences and philosophies of the "target" populations of development initiatives themselves provide invaluable guidance for how to design and implement systems and policies that will actually benefit those they are intended to serve.

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WARNING SIGNS

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## *Introduction*

Established in 2008, the Institute is housed in the School of Social Sciences at the University of California, Irvine. Its mission is to support research on money and technology among the world's poorest people: those who live on less than \$1 per day. IMTFI has supported over 105 projects in 38 different countries. This includes support for over 125 researchers, over 70% of whom are from the developing world.

IMTFI researchers have identified cross-cutting issues affecting client uptake for mobile and other electronic payment platforms. Some provide opportunities for developing new services or laying new products on existing platforms. Others are warning signs: recurrent themes that have impeded uptake, in multiple contexts. We emphasize that there is no one-size-fits-all proposition for mobile and electronic payment adoption. But we have heard some of the same stories again and again, especially admonitions about potential obstacles to use.

All of these insights are taken from IMTFI research projects, which can be found on our website at [imtfi.uci.edu](http://imtfi.uci.edu).



*Depositing money in a TchoTcho Mobile Account. Port-au-Prince, Haiti.  
PHOTO CREDIT: ERIN TAYLOR*

## WARNING SIGNS

### *Guilt by association*

Everyone knows branding is important. Mobile providers that are trusted brands can leverage brand loyalty when launching a mobile money service. But adding new functions to digital platforms can weaken the brand or tarnish it by association with another. Researchers in Haiti and Ghana found that when a utility bill pay function was added to a mobile money product, people started associating the utility company—which they distrust or see as corrupt, inefficient, and delivering poor service—with the mobile money product. This is especially true when the menu structure lists the utility under the core functions for the mobile money service.

## *Fees make it “fake”*

Fee revenue has been the core of the business proposition of digital payment whether in the developed or developing world. Researchers found that while there is no specific fee threshold that creates a pain point for consumers, the existence of fees can dissuade potential users. Researchers in India, South Africa and elsewhere have found that “the very idea of fees” turns people off.

Researchers in the U.S. found American consumers align payment products on a spectrum from “realer” to “faker” based entirely on whether there is a fee associated with use. While they recognized “faker” fee-based products like credit cards were “safer” than “realer” media like cash, particularly in the event of loss or theft, the terms they used to describe these products are telling. Researchers in India found that as transaction fees increased, client use of mobile money dropped and people resorted to informal means of savings. Data from Latin America, however, suggest that purchases of airtime minutes can more than triple on discount days. Rule of thumb: fees are bad; rebates and rewards are good.



*Civilian seeking step-by-step guidance from the security officer in the post office on how to withdraw remittances. Mataram, Lombok Island in Indonesia.*

PHOTO CREDIT: CATUR SUGIYANTO



*Interview with owners of small ruminants, Nigeria.*  
PHOTO CREDIT: ISAAC OLUWATAYO

## WARNING SIGNS

### *Awareness of economic history*

It is easy in the developed world to forget things like economic crises. Most people in the U.S. have never experienced a major currency crisis (such as those in Ecuador in 1999, Argentina in 2001, and Zimbabwe in 2008), a currency devaluation or redomination (such as that which occurred with the Guanaian cedi in 2007), or the kind of monetary instability that shapes everyday life around the world. Despite the global financial crisis, few in the U.S. understand the immediate impact of a bank run and its longer-term psychological and social effects. Not so in many parts of the developing world.

Encouraging digital money means encouraging trust in state-issued currency and the long-term durability of institutions like banks and telcos. Researchers across Latin America, India and Africa report disbelief in the wisdom of solely using digital as a store of value: they want cash, cows, land, gold—a diverse portfolio to ensure their wealth will endure even if other institutions do not.

In rural southwest Nigeria farming remains the highest employer of labor among women with goats as the most preferred livestock. An enabler of small ruminants' monetization include being a member of social groups and associations as it provides avenue to showcase one's skills through participation in regular meetings and getting to know the financial needs and positions of members.



*Rickshaw puller. Delhi, India.*  
PHOTO CREDIT: MANI NANDHI

#### WARNING SIGNS

## *Histories of frustrated expectations*

Unfulfilled promises leave legacies of suspicion and skepticism. Closely related to awareness of economic history, people remember the time when they were made promises that were broken or never realized. Researchers in India, for instance, found that people's lack of enthusiasm for a mobile savings product was linked to a history of being misled or taken advantage of. Like many others working to encourage financial inclusion, IMTFI researchers working with migrant rickshaw pullers in Delhi faced disbelief and distrust. Recalling previous projects by government and private enterprises, including those unrelated to banking or information technology, the rickshaw pullers were wary of investing time and effort to obtain access to mobile financial services. Instead, researchers found that it was important to demonstrate the viability of the financial product first, before their interlocutors would entertain the idea of adopting it for themselves. Simple promises that "this time will be different" did not suffice. Such cynicism, they learned, results from repeatedly being the "target" of development interventions without seeing tangible, lasting benefits or sustained investment by those promoting such interventions.



*Woman in Kenya receiving money via her mobile phone.  
PHOTO CREDIT: SIBEL KUSIMBA*

#### WARNING SIGNS

## *Design for frustration and suspicion*

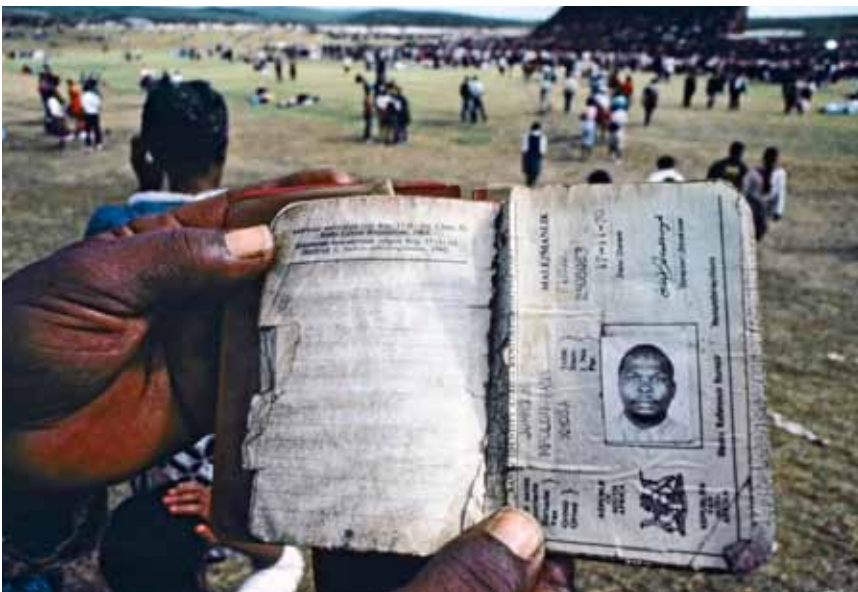
Is mobile money currently designed for frustration and suspicion? Researchers in Kenya found that women's empowerment mobile money schemes were producing intrafamilial conflicts. Mobile money can be used secretly; secrecy can breed suspicion. And if there is inconsistency of service—if it seems to work sometimes, for some people but not others—this can lead to the perception that some people are getting special treatment or are gaming the system, even if the service problems are related to technical glitches. (And, by the way: if there's a technical glitch, or repeated technical glitches, then you can forget about becoming the go-to service).



## *Well-founded fears*

Researchers in South Africa and India have continuously highlighted the controversial history of identification technologies. Even in the U.S., the Census is viewed with suspicion by many citizens who fear government intrusion into their lives.

The experience of many developing world countries is more sinister. On the one hand, registration difficulties are a key barrier to adoption, as our researchers found in India and elsewhere; on the other, ease of registration can sometimes be frightening: how much do they know about me, will they be able to track me and my family, and who—which political party, which tribe or faction—controls and has access to that data about me?



*Black South African (TOP) showing his passbook (BOTTOM) issued by the Government; blacks are required to carry passes that determine where they may live.  
PHOTO CREDIT: UNITED NATIONS (JANUARY 1985)*



*Remittance receivers in Indonesia prefer the face-to-face interactions in banks for their transactions.*  
PHOTO CREDIT: CATUR SUGIYANTO

## WARNING SIGNS

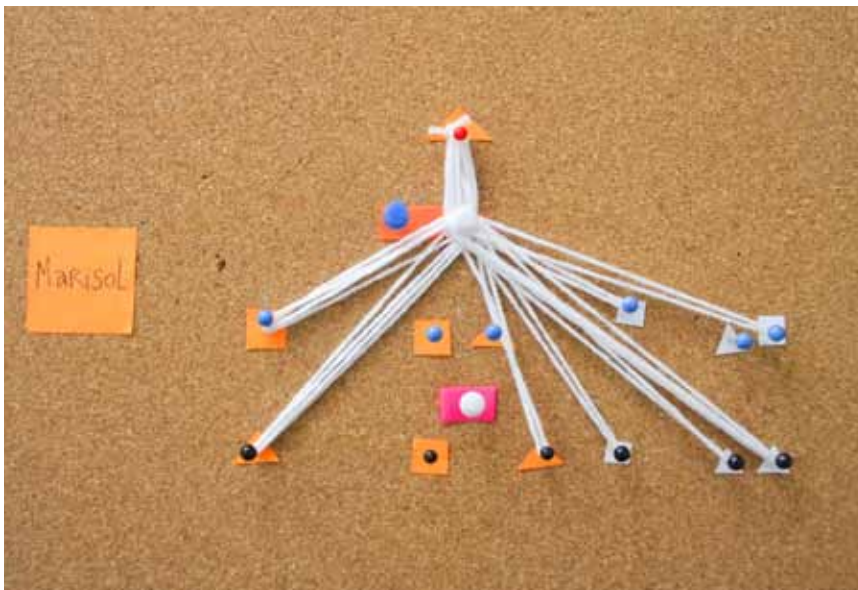
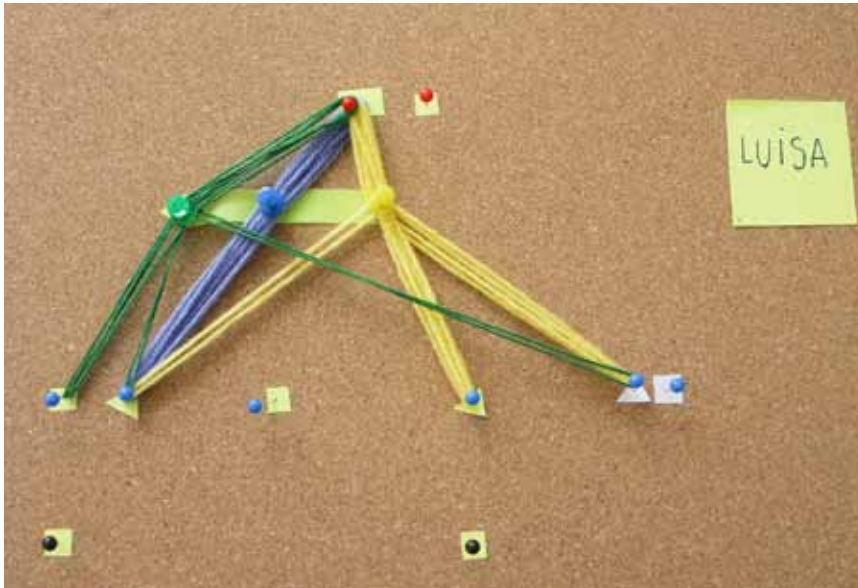
### *Banks are not all that bad*

It's the personal touch! Researchers have been surprised by instances where the availability of mobile or digital payments leads people to reevaluate banks in a positive light. In Indonesia, poor people resist digital money for remittances and prefer banks, despite the many steps and intermediaries involved (from a bank agent to a motorcycle driver to security guards, not to mention the many bureaucratic procedures). Why?

Talking to people—including other clients in the bank line—is more fun and often more informative than “going it alone” through a digital channel, as long as the intermediaries respond to their concerns sympathetically. People also find ATMs impersonal, difficult, and inconvenient. Context is key: in some places, if agent shops look like banks, people distrust them; in others, the more it looks like a bank, the more likely people are to use it.

## *Ownership and access*

Developers almost always treat the mobile phone as a personal and privately owned device. Almost a decade of research shows that this is not the case. Our researchers continue to uncover instances of shared ownership and multiple forms of access. Services designed with the assumption that one person only owns and has access to one phone will create frustration when inserted into existing phone-sharing practices. It can create social mistrust (why will she no longer let me use her mobile?), social hierarchy (why is he the access-point into “my” mobile money account—which is really his account he’s letting me use?), and new opportunities for breakdown (I can’t figure out how this works—where is my friend who always helps? This is about my money, not just a text message!). This is not just about the mobile phone, either: researchers in Chile found that low-income people regularly lend their retail credit cards to one another.



*José Ossandón maps the sharing of multiple retail cards by Luisa and Marisol, residents of a low-income neighborhood in Santiago, Chile.*  
PHOTO CREDIT: JOSÉ OSSANDÓN



*Ndunge Kiiti and Jane Mutinda are working with M-Pesa in Kenya to make mobile money services accessible to the visually impaired.*

*PHOTO CREDIT: NDUNGE KIITI*

#### WARNING SIGNS

## *Interoperability with the physical world*

“I’ve had times when...I wanted to buy 10 shillings, and I find myself I bought 1000 shillings.”

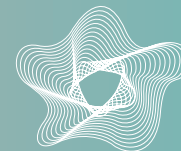
– *Sammy Luvonga, Kenyatta University*

Mobile money does not interoperate with people’s existing physical-world accounting and payment practices. Researchers in India and elsewhere have found that clients stop using mobile money when it becomes too hard for them to keep track of their transactions in their own paper account-books. In addition, with mobile money, there are no size, texture and color differences between denominations, and people who are blind, disabled, or not very financially literate often depend on those distinctions. The material symbolism of cash and coin allows for a variety of semiotic operations.

In Ethiopian and Kenyan open-air markets, the materiality of cash and coin, together with bodily interactions and gestures, are important signaling processes in bargaining and in maintaining a public, if informal, record of transactions. Mobile money dematerializes this— but it doesn’t have to (imagine a shared mobile money interface, like the UP wristband and app when used in groups!). Similarly, mobile money does not work for socially important functions like church donations.

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# *Ways Forward*



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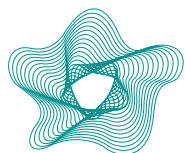
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*Keeping foreign banknotes in wallets. Dominican Republic.*  
PHOTO CREDIT: HEATHER HORST

## WAYS FORWARD

### *Denomination*

Researchers continue to uncover practices associated with the denomination of banknotes and coins that provide opportunities for mobile and electronic money development. In the Philippines, the relevance of any form of value is not just related to its ability to be cashed out (liquidity) but also the ease of dividing it into smaller units of value (divisibility). Conditional cash transfers paid in high-denomination banknotes create the problem of making change. At the same time, ATMs that dispense only high-denomination banknotes force people into “saving” amounts of their cash transfer between those denominations—and they report satisfaction with this outcome.

In the Philippines, the payment is PHP2800 but the ATM only dispenses PHP500 or PHP1000 notes. The distributor thus saves PHP300. A lack of small change in coins can be leveraged similarly to force savings. In addition, in situations where people sort physical money by denomination, size and color, they also often segregate flows of income and expenditure accordingly. In the U.S., money in the coin jar is separated and used for coffee money and the laundry. In Haiti and the Dominican Republic, people keep banknotes from different countries in their wallets, maintaining a record of their connection to the giver.





*The visually impaired of Kenya attend a stakeholder conference with service providers and policymakers.*  
PHOTO CREDIT: NDUNGE KIITI

## WAYS FORWARD

### *Sight and sound*

“We found that some of the persons with visual impairment have actually had people take their money out of their accounts because they have access to their PIN number.”

– *Ndunge Kiiti, IMTFI researcher*

“We are sitting in my sitting room, and with just start talking talking, there was that dink dink sound and the next thing he did was to transfer my money to their phone. I am very suspicious of anybody who now gets hold of my phone, I don’t like it.”

– *Hellen Nguti, Cheerful Sisters Women’s Group*

Sonic and visual cues are important in many transactions. From using sound and voice menus to serve the needs of the visually impaired, to complicated dynamics of hiding and showing off wealth, people interested in mobile money need to pay attention to what gets seen and heard, shown off or hidden, shouted loudly or whispered. In Ghana, houses, cars, clothes, animals, technological gadgets get shown off, while special forms of cloth, jewelry, bulk purchased household goods, and money get hidden away. In India and elsewhere, going to the bank flaunts wealth and invites others to request money. The dynamics of revealing and concealing are different in each context. Mobile money is often said to afford privacy, which can be a good thing sometimes and not so good at other times.

## *Social rank and trust*

In many places where mobile money has been deployed, it is not enough to speak of social trust or the importance of community. Our researchers have identified specific patterns of interpersonal relationships that often get glossed as “trust.”

In Ghana, people look to chiefs or queens to guide their behavior. High-ranking people are expected to make displays of wealth in the form of large gatherings and parties, which serve to redistribute money and goods but also to demonstrate and reaffirm their rank (I’m so high-ranking, I can give all this stuff away).

In some parts of Kenya, Uganda and Tanzania, rank is less important than generation; elders pool resources in order to help their juniors acquire the social and material properties necessary for the transition into full adulthood.

In Ghana, people might say, “mobile money is just for rich people,” but be speaking of these rank relationships. In Kenya, “transferring” money may actually be a form of collective “savings,” creating through the mobile platform a circulating fund of wealth to be used on behalf of juniors.



*TOP: Ghanaian chiefs display their wealth for Ghana’s anniversary celebrating 50 years of independence. BOTTOM: Gold offering for Ethiopian wedding.  
PHOTO CREDIT: SWEGGS*



*Cell phone market in Ghana.*  
PHOTO CREDIT: ERIC OSEI-ASSIBEY

## WAYS FORWARD

### *Circumstantial adoption, experimentation, and “testing”*

People do not necessarily choose digital money, but when the circumstances demand it, they begin to adapt and adopt. In Ghana, researchers found that early adopters of mobile money were not particularly tech-savvy nor were they wealthier than non-adopters, they simply found themselves in a situation where mobile money was an immediate fix to a particular problem at a particular time.

In India, researchers found users of a mobile money service to engage in repeated, small-value “test” transactions, a kind of experimentation with the service. How can such experimentation develop into other levels of participation or involvement?

## *“Embarrassing stuff” and play*

Researchers frequently report activities that users—and the researchers themselves!—are embarrassed about. But these are habits and cultural patterns that have the potential to encourage people to adopt new digital habits. Lovers in Kenya and Afghanistan send money via mobile to flirt. They are using mobile money as a new communications channel rather than as a monetary gift per se. They are taking advantage of the so-called phatic functions of mobile devices. Here, the message is the medium; the content does not matter so much as the form (as in older mobile phone practices like giving a “missed-call,” “flashing” or “beeping,” communications that convey no other content than “I am here,” or “I like you.”). Analyses of transactional data in Central America show the geographic and temporal variation of airtime. Gifting is often not about airtime’s intended use (for talk or text) but simply, like a greeting card, a “hello.” These practices are related to various forms of play emerging with mobile money.

Savvy businesspeople are already taking advantage of the extensibility of this play: In Kenya, M-Pesa can be used to play in televised lotteries. Now, there are televangelists who will accept your M-Pesa payment to pray on your behalf to win that lottery. In Nepal, researchers observe that gambling activities and rotating savings/credit circles co-exist and are performed in public events where diverse modes of sociality and play are central to participants as well as community spectators.



*Televangelists in Kenya accept donations by M-Pesa.  
COURTESY OF NTV, KENYA*

## *Simplicity, convenience, and versatility*

Our researchers have found that people on the ground prefer platforms that offer multiple services in a one-stop shop. Game operators in Colombia attract low-income, informal sector workers because they provide a variety of services all under one roof, at a single point of service, and through simple processes. People can receive remittances, pay electricity bills, top-up their mobile phone and gamble in the lottery just by talking to their storekeeper.

In a related vein, the variety of services offered by the same agents can drive uptake by consolidating the tasks of potential clients and locating them in the same place. Proceed with caution, however, and note the problems that can result from unintentional “co-branding.” This is where the human element and ethnographic research can help.



*Game operator networks in Colombia provide a  
multiplicity of services all in one spot.*

PHOTO CREDIT: ANA ECHEVERRY AND COPPELIA HERRÁN



*Anse-à-Pitres Border Crossing, Haiti-Dominican Republic.  
PHOTO CREDIT: HERMES BAEZ*

## WAYS FORWARD

### *Directional uptake*

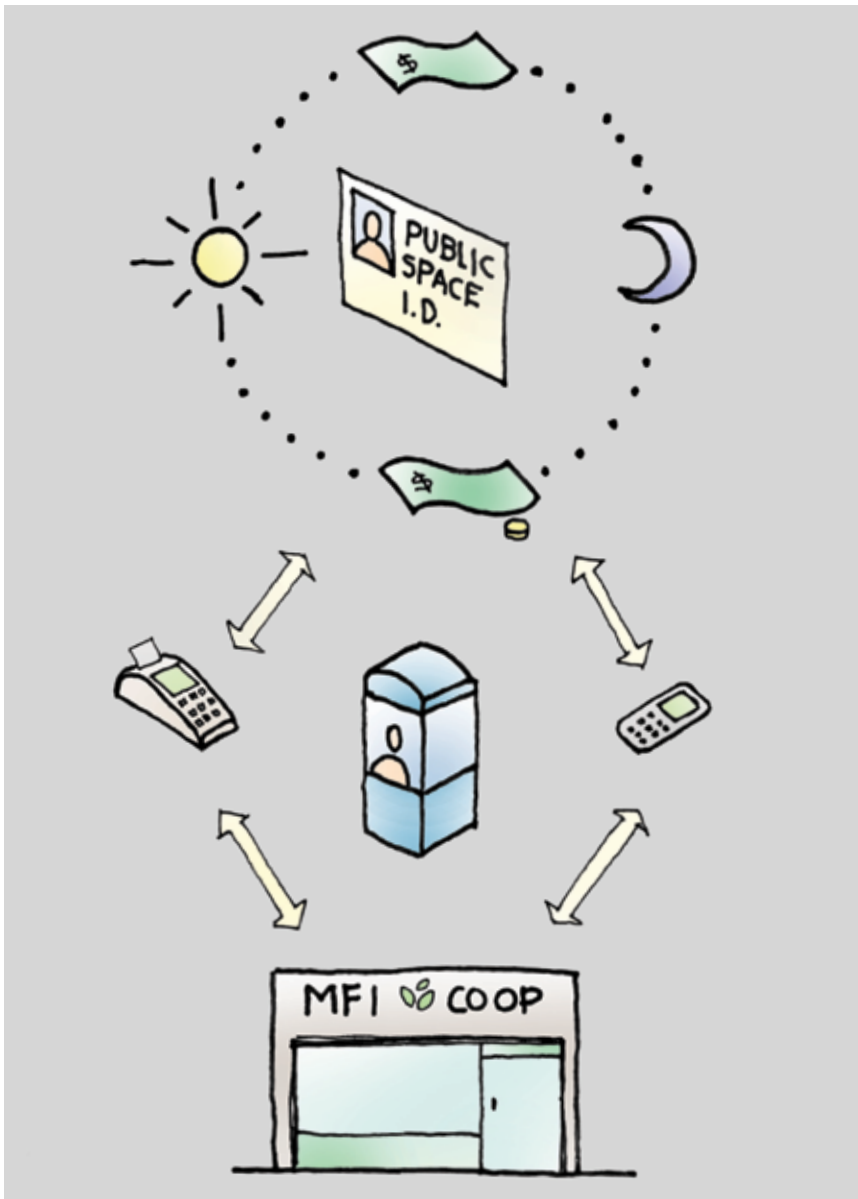
Usage and uptake patterns may differ for the same mobile money service depending on location. This has been understood in the context of providing liquidity to agents, but can be expanded to provide opportunities for greater uptake, too.

In Haiti and the Dominican Republic, people are uploading money on one side of a border and cashing it out on the other. This usually means the people on the receiving side require greater liquidity but it might be that the sending side are benefactors seeking to provide other forms of social, emotional or monetary support to their loved ones (remote bill pay, “I love you” gifts, insurance); the people on the receiving side might be dependents, who may require additional social services or forms of assistance (job training, access to health clinics, financial literacy classes). Alternately, the people on the sending side could be exploited laborers, who need access to health care, information about their rights as workers, access to pensions or insurance. Understanding more about the situational context allows us to see the opportunity for uptake.

## *Short cycles, small amounts, and mobilization of value*

Short-cycle savings and lending are commonplace. Often the mobilization of value is more important than who owns it. Informal workers in Colombia take out small loans (US \$5-\$10) from moneylenders who charge very high interest rates. In Nigeria, many susu savings systems are for short periods of time—users pay in daily, and receive a monthly payment without interest. In Mexico, people who can mobilize assets, even those they do not own, are seen as creditors and as creditworthy. Short-cycles and asset mobilization could serve as starting points for design. They can also serve, as researchers from Colombia point out, as starting points for alternative credit histories.

The graphic to the left shows an opportunity area to offer short cycle credit/loans based on “plante” (money needed for a day of work, e.g. US \$5-10 to pay within days) and the possibility to integrate vital payments such as utilities, state subsidies, remittances, phone reloading and suppliers (agro and merchant cooperatives).



Ana Echeverry and Coppelia Herrán illustrate an opportunity area in the short cycle credit/loan, Colombia.  
GRAPHIC COURTESY OF ANA ECHEVERRY



*Social spending, Philippines.*  
PHOTO CREDIT: JANET ARNADO

## WAYS FORWARD

### *Gangnam style*

IMTFI research repeatedly finds that mobile money works when it is familiar and easy to replicate, learn, and perform. Learning and replication happens in groups - from ritual performances to collective circulating funds. Focusing on trust or pain points can sometimes oversimplify or individualize what is a social issue. Payment is often quite public; it takes place in ritual and religious cycles, funerals, weddings, and large festivities. When it is private, we need to understand why. The group is not always a collective, but can be a strictly or more subtly hierarchical entity, as we see in relationships of rank and status. Mobile money works well with other existing social and technological platforms, including existing sharing and gifting behavior. People's sharing practices are important, if not strictly speaking always legal or legitimate. The mobile phone itself is not an individual tool, but often a group asset. At IMTFI's 2012 conference, a researcher said that mobile money and finance are like "learning to dance a signature move," something best done—and more fun—when you're not alone.





*Me and my four active phones, Afghanistan.*  
PHOTO CREDIT: JAN CHIPCHASE