



MOBILE BANKING AND CONDITIONAL CASH TRANSFER PROGRAMS*

EDUARDO H. DINIZ, NATALIA FINGERMANN
AND NINA BEST

Conditional cash transfer (CCT) programs are an innovating strategy for breaking the intergenerational transmission of poverty. In the short term, they aim at reducing poverty transferring cash to poor and extremely poor families; while encouraging investment in human capital—the long term goal—by conditioning transfers upon regular medical checkups, school attendance, among other. Like so, CCT programs extend beyond the guarantee of food to the general well-

being of the family and the community, as they empower the poor to spend locally and invest in human capital by keeping children in school and working on illness prevention through regular visits to the local health clinics. Thus, in CCT programs, governments, providers and families are all co-responsible for service improvements in both health and education (Rawlings 2005:144).

However, managing and implementing these programs is a complex process that involves many institutions that need to work side by side in order to achieve one of their most important goals: deliver the CCT to the beneficiaries. Ideally, beneficiaries should receive their payment easily and at a minimum cost of displacement.

* This *Inshort* has been prepared over the base of the paper *Conditional Cash Transfer (CCT) programs and the role of ICTs: Analysis of the Bolsa Familia case*, by Eduardo H. Diniz, Natalia Fingeremann, and Nina Best.

* The complete document is available at the Capital Project: <www.proyectocapital.org>.

Payment infrastructure managed by financial institutions should be considered as the primary channel for CCT delivery, due to their scale and security capabilities; also, for ensuring efficiency of the payment process. Since bank branches and ATMs are usually located quite far from where most CCT beneficiaries live, alternative payment channels must be considered for lowering the payment process' transaction costs. We should note that most beneficiary families live in remote areas, underserved by financial and public institutions. Therefore, for cashing their conditional transfer they must expend a great amount of money and time.

It is in that measure that the integration of information and communications technologies (ICT) to the programs' logistical process can be of great advantage, especially regarding the payment process. At the same time, the use of cell phones has spread with astonishing speed particularly among the poor all over the world. Much of the success of mobile phones is a consequence of the prepaid model, which allows people to receive calls, without having to pay a monthly fee. If they wish to make calls, they can buy credit—minutes—, if they can't afford to do so, they are still reachable.

As more mobile phones reach the hands of people who lack access to formal financial services, the more consolidated the concepts of mobile money, mobile payment and mobile banking have become. This phenomenon is inevitable and irreversible; however regulatory matters, business models, and security, among others issues are still under debate. Some of the countries with the largest deficit in formal financial services access have developed very innovative solutions for using mobile phones

as a payment instrument. This is the case of M-PESA in Kenya.

THE M-PESA EXPERIENCE

While having restricted access to banking services, the use of mobile phones was rather widespread among Kenyans. In most cases, they bought "airtime" as credits for mobile use in minutes and transferred them to each other as remittances, creating an informal means of payment and money transfer. Having realized the opportunity, it wasn't long until Safaricom, a local mobile operator part of Vodafone's European group, decided to take advantage of this emerging culture.

And so, in March 2007, SAFARICOM launched the M-PESA mobile money service. Putting together the "M" for mobile with *pesa*, which means money in Swahili, the most spoken language in Kenya, the service became an instant success. Safer and more efficient than the parallel market of minutes, M-PESA was quickly adopted by Kenyans. It now serves one quarter of the population. Migrants send money to their home villages, and urban residents pay their bills through their mobile phones. The explosive growth of M-PESA drew worldwide attention, becoming an international reference regarding the use of cell phones as a payment instrument.

How does it work? For example, a worker in Nairobi, the capital of Kenya, who wishes to send money to his family in the countryside, can purchase SAFARICOM mobile phone credits, and via the M-PESA application chip installed in the phone, he can transfer the credits to the desired recipient. After having received the credit on his cell phone, the transfer beneficiary can go to the closest SAFARICOM shop and exchange the received minute



credits for cash. This simple and effective service has successfully replaced what used to be the main form of sending remittances to the countryside: an envelope full of cash handed over to intercity bus drivers to be delivered.

SAFARICOM has since opened several stores in inland Kenya, building a significant network of representatives and partners. In addition, they have adapted the use of mobile phones to enable money transfers, pay bills and buy tickets. New services have also been launched by SAFARICOM, such as the M-KESH, which allows citizens—many of whom have been traditionally excluded from the formal financial system—to borrow money as well as to operate a bank account.

Even if M-PESA has become the leading international reference in mobile money, there are also other companies offering these services. Among them we find Smart Money, a mobile money program operated by Smart a mobile phone operator in the Philippines, as well as two other cases in South Africa, Wizzit and a partnership between the Standard Bank and the MTN mobile operator.

CHALLENGES

As a payment channel, mobile phones have the potential of tackling two questions simultaneously. On the demand side, it opens up possibilities for financial inclusion of the underserved population in banking services, stemming from access to a simple means of receiving the benefit payment to an actual mobile bank account. On the supply side, it may allow the delivery of a greater diversity of financial services offered by traditional financial institutions, generally constrained by cost barriers in reaching the poor in more remotely located areas.

So, one may wonder why don't other countries foster the Kenyan M-PESA model and achieve the same degree of success? Even if such examples of mobile money have been implemented in countries, Kenya for example, where technological and financial infrastructure are precarious (Souza 2011), guaranteeing the correct functioning of mobile payment operations, demands a complex operation regarding payment clearing and logistics.

While mobile operators have enough expertise to make connections, the clearing to complete the payment process is not their core business. Payment clearance is easier to solve when it is limited to databases inside a single company. This is the case of the Kenyan market, where the whole process is controlled solely by Safaricom. Another alternative would be to establish a partnership with a financial institution, such as a bank, as it happens in South Africa, facilitating the process as banks are better prepared to deal with these processes.

However, this is not the case for all contexts. In most countries, in order to enable mobile payments it would be necessary to design adequate infrastructure for guaranteeing interoperability among a diversity of banks and mobile operators. This means that in more developed markets, with a more balanced competition environment among banks and mobile operators, developing and implementing a mobile payment solution accepted by all parties becomes a much more complicated task. Therefore in Kenya, with a single company controlling the whole mobile market and with most of the population not being served by the formal financial system—meaning that banks are largely irrelevant to

most of the population—, the M-pesa had great chance of being widely and rapidly adopted.

Another important aspect that needs to be addressed refers to the distinct mobile payment models that can be built over the base of three basic models: bank-led, non-bank-led, and partnerships between banks and non-bank agents. The bank-led model is the most common in developed countries and serves, mainly, citizens who already have a bank account, having, therefore, little relevance in terms of financial inclusion purposes. The non-bank led model can be exemplified by the Kenyan and Philippine cases, where non-bank agents, such as mobile operators, are protagonists while banks play only a supporting role. The partnership model would be the case for most countries: banks want the leading role while operators have access to those underserved by banks. The case of MTN and Standard Bank in South Africa illustrates this kind of partnership.

However, the latter type of arrangement raises an important question regarding what portion of the market would be actually served partnerships comprising “one bank and one operator” or “one bank and many operators” or “many banks and one operator”. Also, regarding what kind of impact these different partnerships would have on the delivery of the mobile payment.

Naturally, the ideal alternative would be a “multi bank and multi operator” arrangement in one single clearing process, but this would demand regulation and infrastructure that has not yet been made available in any developing country. Given their relevance in the control of money flow in their corresponding country, and thus in

the whole economy, central banks and telecommunication regulators would have to step up and play crucial role in the process. The idea of exchanging credit minutes for cash in retail outlets, as it happens in Kenya, it is highly regarded by most central banks who want to continue having a strong control over currency value and money availability to limit inflation, restrict money laundering and so on.

THE BRAZILIAN CASE

Looking at the Brazilian scenario and considering all the aspects mentioned in the previous section we can see more clearly some of the challenges for implementing a mobile banking payment system. First, in Brazil, no single bank or operator controls the entire market. On the supply side there are some initiatives, most of them based on the “one bank, one operator” model; however, none have the power to make a significant impact on the market. Furthermore, recently, the Brazilian Central Bank denied mobile operators the possibility of implementing the exchange of credit minutes for Brazilian currency at a retail level.

On the other hand, however, telecommunication regulators have recently allowed the implementation of mobile virtual network operators (MVNO), allowing new opportunities for banks to buy minutes from operators on wholesale and pass them away on retail (with many possible business models) to their clients. This initiative may raise expectations for new opportunities in mobile payments in the country (Souza 2011).

On the demand side, cultural questions still remain. Regarding the Kenyan experience, we should note once again, that Safaricom started a business after—not before—noticing the



cultural exchange of minutes as an informal payment process. Then, as the exclusive mobile operator SAFARICOM seized the opportunity establishing through a simple contract model standard prices for minutes. In Brazil, even if it were possible to transfer minutes from one mobile user to another, it is not used for carrying out payments. Minutes are not considered currency, probably because as many other Latin American countries there are different rates for minutes, depending on the contract and major operators who in their competition for market share are constantly altering the prices charged by the minute.

Important movements are being made by CIP (*Camara Interbancária de Pagamentos* – Interbank Chamber of Payments), an institution with great potential of becoming the clearing house for mobile payments in Brazil. CIP is owned by the main banks in the country and has already got the capabilities for processing a large number of payments related to interbank payments. From a strategic point of view, this institution could become the solution for banks to process any form of mobile payment, however CIP is not related in any way to any mobile phone operators. If all banks became MVNOS, the rules for setting up the mobile payment infrastructure would have to completely change in the country.

Based on the logic of reaching beneficiaries in a simpler and easier way, reducing payment logistic processes and fighting bottlenecks in the CCT program payment delivery process, the Brazilian Ministry of Social Development and Fight against Hunger (MDS) has started taking the first steps in implementing mobile payment alternatives. As a pilot experience, it has an-

nounced that banks and operators will be called to present projects regarding the “one bank, one operator” model for delivering the BFP benefit payment. Even though the announcement was confirmed by MDS officials in public meetings and interviews, it has not become a formal bidding process yet, and no deadline has been established for submitting projects.

Instead, three formal bidding process funded by the United Nations Development Program (UNDP) were announced, attracting researchers from academia and consulting firms. The idea was to help the MDS define its strategic actions in terms of: (i) financial inclusion and the BFP, (ii) financial education, and (iii) payment logistics. The latter will no doubt contemplate mobile payment related questions.

Considering the number of monthly payments made by BFP to over 13 million families, this could significantly change the mobile payment scenario in a country such as Brazil, where this mechanism has only captured a few thousand users across the country. Summarizing the scenario of establishing a mobile payment mechanism in Brazil, CIP would play the major role on the supply side and BFP would do the same on the demand side. And, these processes will need to be closely monitored and studied.

Finally, we can say that even if mobile banking looks like an attractive alternative for reaching all beneficiaries at low cost on the demand and the supply side, it is a complex process as in Latin American the mobile phone and financial institutions’ markets are constantly expanding and evolving, making the conditions for a payment strategy very complicated. Without a doubt, if any CCT program in the region wishes

to explore this alternative they will have to carry out their studies regarding their own supply and demand, as well as, their regulatory systems. ●

BIBLIOGRAPHY

Rawlings, L.B. "A new approach to Social Assistance: Latin America's experience with conditional cash transfer programs". *International Social Security Review*. Vol 58, 2-3 2005.

Souza, Fabrício S. "A eficiência no Sistema de Pagamentos Brasileiro e suas perspectivas". In: Dodl, Alessandra; Barros, José. *Desafios do Sistema Financeiro Nacional: o que falta para colher os benefícios da estabilidade conquistada*. 2011. 155-174 pp.

Eduardo H. Diniz, Natalia Fingerhann and Nina Best, Fundação Getulio Vargas



This investigation is the outcome of a project supported by the International Development Research Centre - IDRC (www.idrc.ca).



This publication is possible thanks to the support of the Ford Foundation



Readers may make verbatim copies of this document for noncommercial purposes by any means, provided that this copyright notice appears on all such copies.