Conditional Cash Transfer (CCT) programs and the role of ICTs: Analysis of the Bolsa Familia case

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São Paulo
May 2011
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1. Introduction

Cash Transfer programs represent an innovative strategy to reduce poverty that has been increasingly adopted in a number of developing countries, experiencing varying degrees of success. Cash transfer programs quiet often provide money to poor families conditioned to the children’s attendance in school and regular medical visits. Hence, conditional cash transfer (CCT) programs aim at responding to two interrelated causes of poverty: consumption levels and the lack of investment in human capital. Unlike traditional social assistance programs that focus exclusively on short-term poverty alleviation and food or income distribution, CCT programs tend to focus on long–term investments in human capital, thus aiming to reduce structural poverty (Rawlings and Rubio 2003, Rawlings 2004, Sadoulet and Finan and Janvry and Vakis 2004, Borguignon and Ferreira and Leite 2002, Handa and Davis 2006, Brito 2004).

CCT programs have shown several advantages over traditional social assistance programs as they allow families to allocate the money according to their immediate needs. Consequently, the benefit extends beyond the beneficiary family, having an impact on local shops and warehouses, as the family’s spending in the local market increases. CCT programs extend beyond the guarantee of food to the general well-being of the family and community, as they empower poor families 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, the CCT programs’ success in reaching the poor is highly dependent on the efficiency and availability of Information and Communication Technologies (ICTs) infrastructure. In Brazil, the Bolsa Familia Program (BFP) has been largely successful due to the adoption of an innovative ICT model, known as the correspondent banking, or branchless banking. Since bank branches and ATMs are usually located quite far from where most CCT program beneficiaries live, the Caixa Economica Federal (CEF), a Brazilian state-owned bank, has extended the payment process of the BFP to the correspondent banking system, which includes local shops and lotteries. These alternative payment channels have considerably decreased the logistical costs of the benefit payment process making the BFP much cheaper. The correspondent banking model has also contributed to undermine clientelism and vote
buying behavior at the local level by monitoring the benefit distribution through a centralized computer system.

In addition to the payment process, the correspondents may provide easy access to other banking services, such as access to saving and checking accounts, credit, and insurance, among others. Although every BFP beneficiary receives a magnetic and personalized card to cash the benefit, not every beneficiary opens a checking account in the bank. The financial inclusion through the correspondent banking model is simple and feasible, but there are still numerous challenges that need to be faced in order to expand the system to a greater number of beneficiaries.

This paper primarily aims to analyze the extent to which the correspondent banking model has facilitated the financial inclusion of BFP beneficiaries. First, the paper discusses the role of ICTs in different CCTs programs in Latin America, including the main challenges that need to be faced if local characteristics are not taken into consideration. Secondly, it analyzes the emergence of the BFP Program in parallel to the expansion of correspondent banking network. Thirdly, it discusses the upsides and downsides of the correspondent banking model, considering the bottlenecks in both the supply and demand sides. Next an analysis of the mobile payments scenario is presented and its potential role in CCT programs is discussed. After this section, the paper discusses the challenges faced by the use of ICTs in adequately making additional banking services available to BFP beneficiaries, in other words, how to successfully include beneficiaries in the formal financial system. The following section presents some of the major challenges relating to adult financial education and how the creative use of ICTs can support the empowerment of poor adults in the adequate use of financial services and management of resources. Lastly, the paper presents some of the lessons learned and raises new research questions to promote discussion and further research in order to better understand the existing opportunities and challenges in the use of ICTs and their applicability in CCT programs.

2. The role of ICTs in CCT programs

ICT infrastructure plays an important role in CCT programs as the payment process depends on its efficiency. CCT programs have adopted different models in Latin American countries, with different degrees of success (Maldonado et al. 2011). While some CCT programs present a limited use of ICTs by directly paying in cash, others programs have involved several institutions in the payment process, as well as
the use of magnetic electronic cards and/or bank checking and saving accounts in order to adequately include the poor in the financial system. For instance, in Bolivia in both CCT programs, the *Bono Madre Nino-Nina Juana Azurduy* and the *Bono Juancito Pinto* beneficiaries are paid in cash in specific bank agencies. Despite the use of bank facilities to pay the benefit, the payment system does not require a high use of ICTs and there is no financial inclusion initiative incorporated in either program. Another weakness in this particular model is that the beneficiaries are only able to withdraw their benefit during the bank’s business hours, as the use of ATMs are not permitted as beneficiaries do not own bank cards to allow this service. Other CCT programs in Latin America that pay in cash include the *Red de Proteccion Social* in Nicaragua, the *Juntos* in Peru, the *Asignaciones Familiares* in Uruguay, the *Bono de 10.000* in Honduras, and the *Red de Oportunidades* in Panama.

The *Chile Solidario* program has designed three ways of carrying out the benefit payment: through cash, checkbook via mail and bank deposit in a special bank account. This special account does not charge any interest rate for the use of banking transaction services, such as withdrawals, transfers, deposits and so on. The Chilean program, to some extent, intends to financially include the poor. However, the program does not include a microcredit policy, which could help tackle poverty in a more effective way. In Colombia, the *Familia en Accion* program also uses three means to carry out the benefit payment: cash, electronic card and savings account. In the first years of the program, the payment was made exclusively in cash, and as such, could not be considered as a financial inclusion initiative. As the program expanded, the Colombian government has adopted the payment via the electronic banking card. Through this electronic card, the beneficiaries are able to withdraw the benefit at any authorized bank agency or ATM, but they are still limited in their use of other banking services. In 2009, Colombia has implemented the payment via bank account through the Banco Agrario in order to include all beneficiaries in the financial system. Despite the fact that Colombian beneficiaries have a bank account in order to receive their CCT benefit, it is still questionable to what extent they use and are aware of other banking services.

Like Chile and Colombia, the *Progresas/Oportunidades* program in Mexico has adopted the three forms of payment (cash, electronic card and bank account). In order to expand the payment to distant rural areas, the Mexican program was the first one to “replicate” the correspondent banking model designed in Brazil. Since 2008, beneficiaries can withdraw their benefits at DICONSA, a state-owned company under the Social Development Department. Unlike Brazil, Mexico ICTs have not extended
banking services to local shops yet. In the following section, the paper briefly discusses the emergence of the BFP and the expansion of correspondent banking in Brazil.

3. Bolsa Familia and Correspondent Banking

3.1 Bolsa Familia Program

The Brazilian government has introduced several CCT programs at the federal level since 2001, such as the *Bolsa Escola* (BE), the *Bolsa Alimentação* (BA), the *Auxílio Gás* (AG) and the *Programa do Cartão Alimentação* (PCA), linked to education and food security policies. Soon the government recognized a huge overlap between these programs which increased the costs and disconnected the programs to the social protection network. As such it was decided that they should be consolidated into a single program they called *Bolsa Família* (BFP). According to the Ministry of Social Development and Hunger Eradication (MDS), the BFP is a conditional cash transfer program that focuses on three integrated fronts:

1. **Cash transfer** that promotes immediate poverty alleviation;
2. **Conditionality** that guarantees the access to basic social rights, such as education, health and social assistance (See Appendix 2);
3. **Complementary programs** that enhance the skills and abilities of the poor, such as *Plano Setorial de Qualificação Profissional* or “Próximo Passo”, *Programa Acreditar* and *Programa Brasil Alfabetizado*.

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1 The *Bolsa Escola* is a benefit linked to school attendance; the *Bolsa Alimentação* and *Auxílio Gás* are a food and cooking gas benefit; and the PCA is a Food Card Program.
2 Bolsa Familia was established on October 20th 2003, under the promulgation of the executive decree 132, which has passed to Law 10,836 in 2004.
3 *Plano Setorial de Qualificação Profissional* or “Próximo Passo” is a partnership between Ministry of Social Development and Hunger and Ministry of Labor to offer professional training to BFP beneficiaries in sectors that lack skilled professionals, such as building and tourism.
4 *Programa Acreditar* is a partnership between Ministry of Social Development and Hunger and the largest Brazilian engineering and construction company, Odebrecht, to hire BFP’s trained beneficiaries.
5 *Programa Brasil Alfabetizado* is a partnership between Ministry of Social Development and Hunger and Ministry of Education that provides literacy courses to BFP beneficiaries.
Graph 1: The Expansion of CEF’s Correspondent Banking Network

The BFP has rapidly reached the poor located in distant areas of Brazil due the expansion of the CEF’s correspondent banking network. Graph 1 illustrates the correspondent banking network increase from 12,500 correspondents in 2005 to 33,000 in 2010. It also demonstrates that the Caixa Aqui (local CEF attendance points) have had a greater increase than the CEF Lotéricas (lotteries) since 2006.

Currently, the BFP is the largest CCT program in the world and benefits 13 million families, out of which 7.8 million receive the payment of their benefit via the correspondent banking networks, 2.8 million via the simplified bank account model, and 1.5 million via bank agencies (MDS 2011; Banco Central 2010: 20). Appendix 1 shows the number of families entitled to receive BFP in the map of Brazil.

3.2 ICT role in the Bolsa Familia Program

As previously mentioned, CCT programs are highly dependent on ICT infrastructure to be efficiently operated and managed. ICTs play an essential role in the BFP providing infrastructure for all processes involved: a) family registration, b) storage and maintenance of data on beneficiary families, c) payment logistics and d) production of program monitoring and evaluating reports.

The registration process is done locally, close to where the BFP families live, and is managed at the municipal level. As the registration process does not involve financial transfers, nor is it time sensitive, it demands relatively low computing power that can be made available at a low cost. Usually in this process, PCs and hand held devices are sufficient to ensure the needed ICT operative infrastructure, since the data
will enter the system through the work of people in the field in some sort of local agency. The use of hand held devices as an ICT instrument can mean a significant improvement in the registration process since it reduces the need of data reentry in the system. As such, the major focus in this phase is on human resources as a well-trained team is critical to guarantee that the system will operate well.

Storing and processing data from families as well as producing control reports can demand high computing capacity, but they are usually performed in a centralized way and can be done where the central government already has good computing power installed. Once municipal governments have locally collected the data, they send it to some sort of centralized account platform, which can be accessed and handled by government officials and technicians to generate all sort of analysis needed to monitor and evaluate the CCT program.

In terms of the ICT infrastructure, the most complex operation needed to operate a CCT program is the payment logistics. This process demands highly integrated, secure and time sensitive systems for paying the benefits locally, close to where the beneficiary families live. Since the effect of such programs are directly dependent on the capacity of making the payment in attendance points as close to the beneficiary families as possible, the correspondent banking model is crucial to the BFP’s success.

The logistics of issuing the benefit payment of a CCT program involves the process of planning, implementing and controlling flows required to trigger the payment network in order to allow the withdrawal of the benefit by beneficiary families, including cash management. There are two main processes related to the payment logistic: the delivery of the payment authorization and the payment itself. As some of the most important CCT programs are based on payments through electronic cards, the payment authorization process is mostly done by delivering an electronic card to the beneficiary families. The payment process is complete when the payment, usually in cash, is withdrawn by the beneficiary.

### 3.3 Delivery of payment authorization

Once the registration process is concluded, the authorization process begins. Figure 2 shows the flow of activities related to the BFP electronic card delivery process.
3.2. Payment process

To complete the logistical process, beneficiaries must receive their payment easily and at a minimum cost of displacement. The payment infrastructure managed by financial institutions should be considered as the primary channel for CCT delivery, due to their scale and security capabilities, and also in order to ensure efficiency in 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 in order to lower the transaction costs of the payment process.

The Brazilian case of branchless banking or correspondent banking can be analyzed as an interesting model in the CCT benefit payment process. As stated by the Brazilian Central Bank, 80% of all Federal Government social benefits are delivered through a network of correspondents, serving as many as 40 million Brazilians, most of whom have little or no access to formal financial services (Feltrin et al., 2009). The same Central Bank report indicates that the benefits from correspondents extend beyond the low-income population who receive direct financial support from the government. Retailers hired as correspondents also benefit from increasing sales, thereby improving the quality of life in the often remote localities where they operate, generating employment and income opportunities within the local communities where they operate.

The payment process through the correspondent banking model must be understood along three stages: (1) account platform, (2) network integration, and (3) delivery points. To illustrate this process, take the correspondent network presented in Figure 3 as an example. In most cases, a bank is responsible for the account platform, however Brazilian regulation allows any supervised financial institution (e.g., credit unions and some microfinance institutions included) to operate as an account platform. The main Brazilian CCT program (Bolsa Familia) is delivered exclusively by the CEF, a state-owned financial institution responsible for delivering all sorts of social benefits, including pensions and unemployment aid.

The CCT benefit delivery points are often retailers hired to deliver financial services as correspondents for the account platform institutions. From the almost 150 thousand retail outlets operating as correspondents in Brazil, the CEF is responsible for some 25 thousand attendance points. Nine thousand of these are lotteries and the remaining 14 thousand are small grocery stores, supermarkets, drugstores, and other kinds of retail businesses. Other important networks of correspondents in Brazil are led by the Banco do Brasil, with around 20 thousand points, and the Bradesco Bank, with another 25 thousand points, including six thousand post office branches in a partnership with the Brazilian Postal Company (ECT –Empresa Brasileira de Correios e Telégrafos), known as the Banco Postal.
The correspondent banking network infrastructure is highly integrated and connects the account platform to retail outlets. The network integration in a correspondent network can be managed by the bank itself, as is the case of the CEF, or through a retail chain, as is the case of the Banco Postal and some supermarket chains. Alternatively, a network can be managed by a third party, as is the case of Cielo, a company responsible for processing a network of credit and debit cards. In addition to providing telecommunication connections and technical maintenance and operational support, the network integration process includes business activities such as selecting, recruiting and training retail outlet representatives.

The technology used at the retail outlets varies from basic POS and PCs to dedicated terminals, depending on the services provided. Connections can be made through every communication infrastructure available: phone landlines, GPRS (data transmission on cell phone lines), the Internet, satellite or any other type of connection. At the account platform, high computer power is needed, since both security and data processing in great volumes of transactions are performed.

Although the Brazilian correspondent banking model is presented here to explain the payment process, many other arrangements can perform the same service, combining the three elements described in different ways. For example, it is possible to set up payment infrastructure based on a mobile operator controlling the account.
platform and the network integration. Or even a government institution managing the account platform in partnership with an independent network integrator.

3.4 The impact of ICTs in CCT programs

The municipalities of Alto Paraíso, Colinas do Sul and Pirenópolis, located in the state of Goiás, are good examples to illustrate the CEF’s correspondent banking use of ICTs as an important tool to promote the BFP’s effectiveness in reaching the poor.

Both Alto Paraíso and Pirenópolis are well-known tourist cities located in close proximity to the Chapada dos Veadeiros National Park. As a result, both cities have a greater number of banks than the city of Colinas do Sul. This has had, comparatively, a major impact on the degree of financial inclusion as well as on local economic development in these three municipalities. Although the tourist activities have improved average income, the BFP targeted-population still represent 29% of the total population of Alto Paraíso and 25,5% in Pirenópolis. In Colinas do Sul, BFP beneficiaries correspond to 25% of the municipal population.

The CEF’s correspondent banking covers the three cities, but it plays a different role in each one of them. In Colinas do Sul, for instance, branchless banking plays a crucial role as there is no other financial institution in the municipality. In this case, the correspondent assists not only the BFP beneficiaries, but also provides a range of banking services at the local level for all citizens. In Alto Paraíso and Pirenópolis, correspondents mainly address the needs of BFP beneficiaries and pensioners, while other financial institutions are responsible for providing banking transaction services.

Although the center of Alto Paraíso has at least four financial institutions, correspondent banking does not cover the city’s nearest village, São Jorge. Public transport from São Jorge to the Alto Paraíso city center is quite expensive, costing approximately R$20 (equivalent to US$12) for a return ticket, which represents a significant amount of the total monthly BFP benefit received per family. Unlike Alto Paraíso, Pirenópolis has already solved this difficulty as its nearest village, Jaranópolis, now has a correspondent banking provider.

In all three municipalities, most BFP beneficiaries were not financially included in the banking system, in other words, they have neither opened a bank account, nor
have they ever requested a loan/overdraft. Correspondent bank owners have not offered additional financial services to BFP beneficiaries as they believed the BFP would not result in financial gains to the bank. Consequently, most beneficiaries were not made aware of the advantages of opening a bank account. While on the one hand, the CEF should provide better training for correspondent bank owners, and should create incentives for them to open new accounts, on the other, the CEF could also support some kind of at a distance financial education program, targeting correspondent bankers as well as BFP beneficiaries in order to ensure the financial inclusion of the latter.

4. Why has correspondent banking model worked in Brazil?

One may wonder why the correspondent banking model has not yet been widely replicated in other countries, especially when considering that CBs are internationally acknowledged as a cost-effective channel that rapidly includes CCT beneficiaries in the financial system. The Brazilian branchless banking model remains unique in terms of scale and quality due to the large network integration between those involved in the process and the development of the Brazilian banking technology. The growth of CB model, however, has taken several years and relied on the following drivers: (i) Central Bank’s pro-activeness to amend the regulatory framework in order to promote financial inclusion, (ii) the banks’s willingness to make use of a cheaper channel for collecting bill payments, (iii) the integration of interbank processes through the “boleto”, 6 (iv) CCT programs designed to be delivered on the city where the beneficiary lives and (v) the Brazilian banking technology which has promoted a wide spread system of banking service providers.

In 1973, the Central Bank took the first step in the deregulation process by enacting the Resolution 220, under which commercial banks were enabled to hire non-banking entities to provide transaction services, such as bill payment. As most Brazilian banks were classified as multiple banks at the time, the resolution remained restricted until the Central Bank enacted the Resolutions 2640 and 2707 in 1999/2000 and Resolutions 3310 and 3156 in 2003. These resolutions allowed multiple banks and the

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6 The bank “boleto” is a kind of payment model whereby the total sum can be divided into monthly payments that are pre-issued and printed and can be paid at a bank or any correspondent banking agency. This form of payment is quite popular in Brazil among those who do not have access to checks or credit cards.
Caixa Economica Federal to hire non-financial entities and also expand the range of banking services provided by third parties.

When CCT programs came to the government agenda in the beginning of 2000, one important aspect included in the design of such programs was the mandatory delivery of the benefit at the beneficiaries’ location. Having the monopoly over the delivery of the government benefit, the CEF has rapidly expanded its banking services to approximately 9,000 lotteries previously connected to its technological platform. Through the extension of correspondent banking to lotteries, the CEF was able to provide financial services to several municipalities that did not have any bank services points. Nevertheless, some municipalities were too small and distant to install lottery shops, so the CEF set up service points within local supermarkets, groceries stores, pharmacies, etc.

We can observe that the correspondent banking model’s success is largely a consequence of the Central Bank’s pro-activeness in amending the regulatory framework, as well as the CEF’s willingness to operate in new markets in order to guarantee the payment of government benefits, especially that of CCT program benefit payments, but not excluding other government benefits, such as pensions, unemployment aid and so on.

Another factor that has contributed to the CB’s success is the standardization of bill payments through a single instrument called “boleto” in 1980 (Fonseca et.al 2010). The “boletos” allow the client to pay utilities bills issued by any bank at all banks. This system has integrated the interbank process; as a result it has facilitated the implementation of CB model. In addition, “boletos” do not involve a huge investment in technology as payment receipts can be made either by old mechanical authentication machines or PCs. The fact that every bill can be paid at any bank has led to an intense traffic of customers at regular agencies in the beginning of every month. Subsequently, the correspondent banking works as compensatory system, which helps alleviate payday traffic in banking agencies by facilitating the access of banking services not only to those who live in remote areas, but also to those located in large urban centers.

Jayo and Diniz (2009) have pointed out that the shortage of bank coverage in the Northeast has resulted in an innovative payment system designed by utility companies in partnership with a leading Brazilian drugstore chain during the 1990s. Through this system, the population was able to pay their utility bills (water supply, electricity and telephone) at the local drugstore. The business model represents a significant cost-effective solution for all stakeholders. The utility companies benefit from
the stable cash flow as more people are able to pay their bill on time. The population benefits from a more affordable and convenient payment system. The retail store quickly raises its revenue by charging a small fee paid per bill received as well as from customer traffic increase. Apart from these benefits, the model has represented a low cost investment in terms of technology, which facilitated its replication when banks decided to include retail shops as an alternative channel for banking services. Since most banks were overwhelmed with bill payment collection of non-clients in their regular branches, this model was quickly adopted by most of the main retail banks as soon as it was regulated by the Central Bank.

It is worth mentioning the Brazilian banking technology as a catalyst for the development of CB. The fact that the Brazilian banking industry has one of the most advanced banking technologies in the world has also provided conditions to the advent and growth of the CB model as a low cost channel for banking service delivery. The Brazilian banking industry has developed its own technology since 1974, when the government announced the National Development Plan II, which prohibited the importation of IT machines. In order to increase the effectiveness in the banking services process, the banking industry started to invest in information technologies. As the investments were very high, the major banks established a partnership to develop a common technological platform, such as the 24 hours ATMs.

Although correspondent banking can be seen as a great model to financially include the poor and rapidly reach conditional cash transfer beneficiaries, the government and the banking industry must work side by side with the population if they want to successfully replicate this model in other countries. The Brazilian case shows that correspondent banking has expanded throughout the nation as all stakeholders have worked together in the design of a model which would address everyone’s needs. Banks have played an important role as they organized themselves to create standards for bill payments during the 1980s and 1990s, and later on took advantage of that standardization through the “boletos” and motivating non-clients to use the correspondent network for collecting the payments made through the “boleto” system. The government believed in the importance of designing CCT programs where the benefit would be delivered to program beneficiaries close to home, made possible through the CEF monopoly of the benefit delivery, control over the lottery network and capillarity through the CB model. The Central Bank led the deregulation process, while the banking industry facilitated the creation of an integrated network through the development of its own technological platform.
5. Bottlenecks of the correspondent network

On the supply side, the main bottleneck of the correspondent banking model relates to the costs in implementing payment networks efficient enough to cover remote and/or poorer areas, usually underserved by telecommunications infrastructure and which present little commercial interest for the most traditional financial institutions. Efforts made by banks in many developing markets to expand their client base have helped build new channels, such as the correspondent banking model in Brazil, to attend prospective clients in underserved areas through the development of low cost infrastructure. Since the benefits for the banks were also tangible, investing in such infrastructure was quickly paid off.

While this new infrastructure may not be sufficient to provide 100% coverage in CCT program benefit payments, the BFP, for example, has a 95% effectiveness in delivering benefit payments to its poorest beneficiaries (Brandão, 2009), meaning that only some 5% of the potential beneficiaries face problems in being covered by this social program. Although 95% can be considered a high level in terms of efficiency, the very poor are the ones who do not receive the benefit and for whom such benefits would have a significant impact, especially in regards to their socioeconomic inclusion and general well-being. This deficiency in full coverage could probably be minimized if the CEF monopoly was broken and other banks were allowed to take part in the CCT payment network.

From the over 5,500 municipalities in Brazil, around 250 have some kind of regular interruption in the continuous operation of CCT benefit payment channels. In most of the cases this happens because of the existence of correspondents that remain inactive for more than two days. There are also cases when the retail stores that operate as correspondents break the rules established in their contract with the CEF (Brandão, 2009). Cash mismanagement in a correspondent outlet can also cause lack of cash availability to issue payments, reducing the efficiency of the entire process.

On the demand side, the main problems surround the withdrawal of the benefit, with increased costs due to the beneficiaries’ displacement to the closest correspondent banking outlet, or time spent waiting in lines or travelling to the nearest correspondent. From a technological perspective, the inexperience of card holders in dealing with electronic magnetic cards, passwords and self-service machines, such as electronic terminals, also represent a significant impact on the efficiency of the benefit payment process.
6. CCT and mobile payments

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 enables the possibility of not charging incoming calls. In developing countries, where more than 80% of the units are prepaid, the poorest benefit from the possibility of receiving incoming calls even when they cannot afford to buy credit to make calls themselves.

As more mobile phones reached the hands of people who lacked access to formal financial services, the more consolidated the concepts of mobile money, mobile payment and mobile banking became. This phenomenon is inevitable and irreversible, although it is still under debate in terms of its regulatory matters, business models, and security, among others. Countries with the largest access deficit to formal financial services have developed the most innovative solutions for using mobile phones as a payment instrument. This is the case of M-pesa in Kenya.

6.1. M-Pesa case

In early 2007, Safaricom, the largest mobile operator in Kenya, had already noticed that the trading of airtime represented a huge business potential. Without access to banking services, but already using cellular phones, Kenyans bought airtime as credits for mobile use in minutes and transferred them to each other as remittances, constituting an informal means of payment and money transfer. Safaricom, a local mobile operator part of Vodafone's European group, decided to take advantage of this emerging culture.

Thus, in March 2007 came the M-Pesa mobile money service provided by Safaricom. Putting together the "M" for mobile with the "pesa" that 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 soon adopted by Kenyans and now serves one quarter of the population with migrants sending money to their home villages, and urban residents paying their regular bills through the cell phone.

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, can transfer the credits to his mother or wife. With the received credits already on their cell phone, the transfer beneficiary can go to the closest Safaricom shop and exchange 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 in the country.

The explosive growth of M-Pesa drew worldwide attention and became an international reference of the use of cell phones as a payment instrument. 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 cell 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 to borrow money as well as operate a bank account.

The M-Pesa has become the leading international reference in mobile money, along with 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.

6.2. Challenges for disseminating the model

Cell phones as a payment channel have the potential to tackle two questions simultaneously: on the demand side, 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 opens up possibilities for delivering a greater diversity of financial services offered by traditional financial institutions, generally constrained by cost barriers in reaching the poor in the more remotely located areas. Why then don’t other countries adopt the same model of the Kenyan M-pesa with the same degree of success?

It is important to note that such examples of mobile money have been disseminated in nations where technological and financial infrastructure are precarious, such is the case of Kenya (Souza 2011). However, guaranteeing that a mobile payment operation works, demands a complex operation for payment clearing and logistics (see items 3.2 and 3.3).
While mobile operators have enough expertise to make connections, the clearing to complete the payment process is not in their core business. The issue of payment clearing is easier to solve when it is limited to databases inside a single company. This can be exemplified by the Kenyan case, where the whole process is controlled by Safaricom. Another alternative would be to establish a partnership with a financial institution, such as a bank, which happens in South Africa, and also facilitates the process as banks are better prepared to deal with payment clearing processes. However, neither of these usually take place in most contexts.

In most countries, in order to enable the possibility of mobile payments it would be necessary to design adequate infrastructure to guarantee the interoperability among a diversity of banks and mobile operators. This means that in more developed markets, where there is a greater probability of observing a more balanced competition environment among a number of banks and also a number of mobile operators, developing and implementing a mobile payment solution accepted by all parts involved would be a much more complicated task. In Kenya, with one 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 could be widely adopted very rapidly.

Another important aspect that needs to be better understood refers to the distinct mobile payment models that can be built based on three basic models: bank-led, non-bank led, and partnerships between banks and non-bank agents. In the first model, the bank-led model is the most common in developed countries and serves mainly the citizens who already have a bank account, having 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 and banks play only a supporting role.

The partnership model would be the case in most countries, where banks want to play a protagonist role and operators have access to most clients underserved by banks. The case of MTN and Standard Bank in South Africa illustrate this kind of partnership. This type of arrangement raises an important question referring to how much of the market would actually be served by “one bank and one operator”, or “one bank and many operators”, or “many banks and one operator” partnerships, and also what kind of impact these different kinds of partnerships would have on mobile payment delivery.
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. Central Bank and telecommunication regulators would have a crucial role in such a process, given their relevance in the control of the money flow in the country, and thus in the whole economy. The idea of exchanging credit minutes for cash in retail outlets, the way it happens in Kenya, is highly regarded by most central banks who want to continue having a strong control over currency value and the availability of money in the market to limit inflation, restrict money laundering and so on.

6.3. Mobile payment in Brazil

Considering all aspects mentioned in the previous section and the fact that no single bank or operator controls the entire market, conditions to expand mobile payment use in the Brazil have not yet been given. On the supply side there are some initiatives, most of them based on the “one bank, one operator” model, however, none of these have the power to significantly impact the market. Recently, the Brazilian Central Bank denied mobile operators the possibility of implementing the exchange of credit minutes for Brazilian currency at the retail level. On the other hand, telecommunication regulators have recently allowed the implementation of mobile virtual network operators (MVNO), which allow for 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 has the potential to raise expectations for new opportunities in mobile payments in the country (Souza, 2011).

On the demand side, cultural questions still remain. In the Kenyan model, Safaricom started a business after (not before) noticing the cultural exchange of minutes as an informal payment process. Safaricom seized the opportunity as the exclusive mobile operator, and through a simple contract model established standard prices for minutes. In Brazil, even if it were possible to transfer minutes from one mobile user to another, it is not used as a means to carry out payments. Minutes are not considered currency, probably because the country has a number of different rate prices for minutes, depending on the contract and the number of major operators competing for market share and constantly altering the prices charged by the minute.

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

6.4. Could CCT change the scenario?

Based on the logic of reaching beneficiaries in a simpler and easier way, reducing the payment logistic process and fighting the bottlenecks in the CCT program payment delivery process, the Brazilian MDS has started taking its first steps in implementing mobile payment alternatives. On a pilot basis, the Ministry announced that banks and operators would be called to present projects following the “one bank, one operator” model to deliver the BFP benefit payment. Even though the announcement was confirmed by MDS officials in public meetings and interviews, it has not yet become a formal bidding process, and no date was established for the projects to be submitted for review. Instead, three formal bidding process funded by the UNDP (United Nations Development Program) were announced, attracting researchers from academia and consulting firms to help the MDS define its strategic actions in terms of: (a) financial inclusion and the BFP, (b) financial education and (c) payment logistics. The third (payment logistics), would undoubtedly cover mobile payment related questions.

On November 15th 2010, one of the main newspapers in the country printed the following headline: “The BFP will be paid through cell phones”7. There were articles describing in detail how the CEF would become an MVNO and would start paying the BFP benefit in 2011 through a chip inserted in beneficiaries’ cell phones with additional credit minutes for free use. The article suggested that the magnetic card used by beneficiaries today would be replaced by a cell phone. Since the CEF is the only

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financial institution involved in the BFP and the MVNO was regulated just a couple
days afterwards, the information printed in the newspaper sounded plausible.

Strangely, just a couple of days after these articles were published, during the
“Il Fórum Banco Central sobre Inclusão Financeira” held on November 17th, a major
conference organized by Brazilian Central Bank and where the MDS had active
participation, the CEF publicly denied all the information related to the articles. Instead,
the idea of a pilot open to all banks and operators (following the one to one model) was
restated and reassured.

Considering the number of payments made monthly by the BFP to the over 13
million families, this could significantly change the mobile payment scenario in Brazil,
which has captured only a few thousand users across the country. Summarizing the
situation for mobile payment adoption in Brazil, the CIP would play the major role on
the supply side and the BFP would do the same on the demand side. These
developments need to be monitored and studied.

7. Challenges

7.1. Financial inclusion

In addition to all its social benefits, the BFP is considered to be a platform for
promoting the financial inclusion of socially vulnerable families. However, the secure
financial inclusion of beneficiaries still remains as one of the major challenges in
amplifying the impact of CCT policies.

BFP beneficiaries receive a magnetic and personalized card used for identifying
the beneficiaries which allows them to cash the benefit. However, unlike with a bank
card, beneficiaries must cash the entire benefit in a single withdrawal. In a recent
agreement signed between the MDS and the CEF, BFP beneficiaries have the option
of opening a special checking account in the CEF bank agencies and receive the
benefit directly in their accounts. They receive a checking account and card, which
enables them to withdraw the benefit received in desired amounts, as well as allows
them to use the card as a debit card. This agreement has enabled the access of low-
income families to the formal banking system, and stimulated them to open their first
bank accounts (checking and savings accounts).

8 “Anatel aprova regulamentação para operadoras virtuais móveis” available at
http://www.estadao.com.br/noticias/tecnologia,anatel-aprova-regulamentacao-para-operadoras-
virtuais-moveis,6418810.htm
In addition to granting beneficiaries with greater security, as they do not have to hold onto the entire portion of their benefit before they spend it, the bank card grants beneficiaries greater flexibility in using their benefit. This banking card also allows access to other services linked to the social platform, such as unemployment support, salary bonus, consulting balance and statements of other social benefits (e.g.: FGTS9, and PIS10).

Migration from the BFP card to a checking account card may be a good model for bridging the gap between those recently included in the formal banking system and the processes of interaction and use of electronic money. It is important to emphasize that the CEF is the BFP exclusive operator. The model is also largely dependent on banks encouraging card migration and offering some sort of free of charge bank accounts to their prospective clients.

Learning how to manage a bank account and use electronic currency is not necessarily an easy transition and demands a cultural adaptation for those who have never had access to financial services and who need to learn the basics of how to use the self-service electronic bank machines, as well as special care with passwords.

The ultimate goal of establishing partnerships between banks and the BFP is to encourage the opening and running of bank accounts by the CCT program beneficiaries, creating conditions that enable them to access the formal financial system, as well as support the social inclusion of families in situations of social and economic vulnerability. Among the advantages we can include greater flexibility, convenience and security, as the beneficiary may choose to cash the benefit received in parts and not all at once; the exemption of banking fees; greater facility for deposits, payments and purchases through debit by using the card; and access to other financial services, such as savings, microinsurances and even credit and microcredit.

7.1.1. Simplified Account Models

Giving citizens access to banking services is a means to ensure their financial inclusion, in particular of those citizens who are unlikely clients and who would probably not be given access to banks due to demands imposed by these financial institutions in order to open an account, such as income or proof of residency, perceived as the two major limitations for low income families in accessing the formal banking system. In addition to all financial transactions allowed, having a bank account

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9 FGTS (Fundo de Garantia do Tempo de Serviço) is the Guarantee Fund for Time of Service rendered.
10 PIS (Programa de Integração Social) is the Social Integration Program charged through income tax.
also allows citizens easier access to loans and credit, giving these families a means to overcome poverty.

In order to improve access to bank accounts by the poor and contribute to their financial inclusion, financial system regulators in Brazil created in 2004 the free of charge simplified bank account model. The balance limit for these simplified accounts was recently increased in 2010, from R$1,000.00 to R$2,000.00 (approximately US$633.00 to US$1,267.00) per month. If the account balance is superior to this new limit then the client should migrate between types of accounts, as the simplified accounts were designed for low value transactions. According to the Brazilian Central Bank, in June 2010 there were 5.7 million simplified bank accounts in the country, a relatively low number as this practice has not been widely disseminated within the Brazilian banking system, and currently only the Banco do Brasil and the CEF have officially adopted it.

The CEF simplified bank account is known as Caixa Fácil. According to the CEF, any Brazilian citizen older than 16 years of age is able to open this kind of account by presenting photo ID and their social security number (CPF), without the requirement to prove their income or residency. This kind of bank account targets citizens whose credits and balance add up to R$2,000.00 /month and who do not have any other kind of bank account (checking or simplified) in any Brazilian financial institution. New clients receive a magnetic card (no check book) through which they can operate all banking functionalities available, including cash withdrawals, payments and deposits. The CEF does not charge clients with any maintenance fees for this kind of account, up to a limited number of transactions per month, with additional transactions charged a specific rate. The Banco do Brasil, another state-owned financial institution, also offers a similar simplified account model targeting low income individuals or micro-entrepreneurs, in particular those whose livelihoods originates from informal sector activities.

Although it is not mandatory to associate a CCT program with a free of charge bank account, it is very important to articulate both to achieve some level of financial inclusion. CCT programs would better contribute to the financial inclusion process if they encouraged beneficiaries to become clients in the formal financial system, which would enable them to access to a number of formal financial services and reduce the incentives and their reliance on informal alternatives that are usually more expensive and less secure. Access to formal financial services provides clients with guarantees related to consumer protection and improves citizenship status.
7.2. From consumption to production

CCT programs have a direct impact on consumption patterns, whereas only an indirect impact on production. CCT programs in Brazil followed a period of intensely repressed consumption demands, in particular by low income groups. This has meant that this small, and yet invaluable amount of money is used for the immediate consumption of needed goods, and it is not necessarily invested or saved. In the short term, this consumption of basic goods may stimulate local commerce, however it does not necessarily stimulate the local production of basic goods. In other words, the incentive for local economic development and growth stimulated by these programs can be clearly notice in commercial activities, but has yet to achieve the same impact in the local productive sector.

Despite the positive impact of CCT programs on local economies in the short term, it is not possible to ensure that this effect will be durable in the long term. Focus on consumption incentives can make local economies dependent rather than sustainable, especially when considering that the resources are largely channeled out of the region where the goods are consumed. This happens because in the long term the capital does not remain in the region unless resources are channeled through to the productive sector, which is only possible when productive financing is made available.

There are a number of interesting strategies to promote the social and financial inclusion of low income families into the formal banking system and thus create incentives for seed money needed to develop productive sectors in poor areas. In addition to opening bank accounts and giving low income families access to banking services with very low or non-existent maintenance fees, banks can also create special lines of credit to support entrepreneurialism and strengthen the development of small and micro businesses by improving their current conditions. Partnerships with public and private actors also have an important role to play in order to develop strategies to promote lasting economic development.

In 2008 Brazilian Federal Government instituted the National Commitment for Social Development (CNDS) in which the Federal government, states and the Federal District would join forces to promote citizenship and social inclusion, and where the MDS would have an important role in supporting projects aiming at productive inclusion.
This federal plan aims to benefit about 30 thousand families in many diverse productivity chains in over 250 municipalities. These agreements aim to build and strengthen independent producers in family business enterprises. The elaboration and execution of these projects is under the responsibility of states, articulated with beneficiary municipalities and other local partners to implement projects locally. States with the greatest percentage of BFP beneficiaries are prioritized in terms of this MDS agreement. Most projects undertaken promote the productive inclusion of low income families by stimulating agricultural and livestock production.

It is important to consider that production means employment and income generation opportunities in the long term, as well as sustainable economic development. In addition to CNDS programs, if the financial benefit received through the CCT programs were to be considered as a collateral guarantee to access credit for production, then the importance of such programs in promoting long term sustainable economic development in regions where families are highly dependent on social benefits would increase.

7.3. Paving a way out for beneficiaries

In addition to the conditionalities imposed to receive the benefit (mostly related to health and education programs), there are also complementary programs linked to the Bolsa Familia. One of the BFP pillars involves articulating actions in the areas of education, work, culture, microcredit, capacity building, and improvement of housing conditions. The three major areas of the complimentary programs are education and culture, regional development and labor, employment and income. Among examples of these actions are programs aiming to increase literacy and education, qualification and professional inclusion, training of microenterprises, microcredit concessions, support strategies for acquiring, constructing or renovating housing units, production and access to culture and issuance of civil identification documents.

7.3.1. Simplified Credit Solutions

Actions in the labor, employment and income area aim to develop the skills and abilities of the beneficiaries so that they are able to be included and compete in the labor market in an effective manner, hoping to ensure sustainable means for beneficiaries to exit the BFP. In order to achieve this goal, capacity building actions are linked to further education initiatives and special attention is given to strengthening enterprises through microcredit, financing and insurance programs.
The BFP benefit has also been used by banks as a guarantee in the offer of microcredit or small loans for micro entrepreneurs. If the benefit were not considered as a guarantee, it would either be impossible or simply very difficult for these groups to obtain credit. The three main examples of this are the Caixa Fácil Credit offered by the CEF, the Popular Credit offered by the Banco do Brasil and the Crediamigo by the Brazilian Bank of the Northeast (BNB).

The CEF Caixa Fácil Credit is a loan in the sum of R$200.00 (approximately US$126.00) used as the account holder wishes, but especially in emergency situations. The interest rate is 2% per month plus the federal tax on financial operations. This credit line was designed especially for CEF Caixa Fácil account users, intending the acquisition of the credit loan to be simple and facilitating the means of payment. Once the request is approved the money is made available for withdrawal in the account holder’s bank account.

According to the CEF, no guarantees are necessary in order to request credit. However, the bank requires that the person taking the loan should be older than 18 years of age, have an active Caixa Fácil or a Caixa Aqui bank account for over 90 days, not have a history of credit restrictions, not have any financial investments or savings account with a balance of over R$1,000.00 (approximately US$267.00), and also not have any active credit operations in the CEF.

The Banco do Brasil also offers a microcredit program called Crédito Popular. This program aims to facilitate access to small value loans with no collateral requirement. Once the credit request is approved, the use of the money is made available in the client’s checking account and can be used freely according to the client’s needs. The value of the credit request can vary between R$50.00 and R$600.00 (approximately US$32.00 and US$380.00) according to the possibilities of each client.

Crediamigo, which translates literally to “friendly credit”, is a credit program offered by the BNB and facilitates the access of credit to thousands of micro entrepreneurs who develop activities related to the production and commercialization of goods and services. The program also facilitates access to individuals who are interested in beginning a productive activity by granting access through community banks. The BNB Crediamigo operates mostly across the Northeast Region, although it has some level of operation in poor areas of the Central West and Southeast Regions.

IOF (Imposto sobre Operações Financeiras) – federal tax on financial operations.
especially in large cities. This credit line also offers follow up and guidance to better apply the loan and integrate the micro enterprises competitively in the market.

The Crediamigo can be an individual or a group loan, and targets self-employed entrepreneurs who operate in the either the formal or informal sectors, enabling entrepreneurs who were unable to access the financial system have access to credit. It is necessary to mention that the Crediamigo already considers the BFP as a collateral, empowering beneficiaries and enabling them to have access to credit, in many cases for the first time in their lives.

7.3.2 Partnership with SEBRAE

One of the means to achieve the social inclusion of low-income families into the highly competitive labor market is to promote the linkage between qualification and capacity building programs and actions. A number of initiatives linking different actions between Ministries, and in partnership with the private sector, are being carried out to ensure means for beneficiaries to earn a decent income and find a sustainable way out the program.

As we have seen, there are numerous microcredit programs designed to benefit the poor, who are unable to access other forms of credit, with the aim of financing production and strengthen microenterprises. Another alternative is to strengthen small business enterprises, essential to further promote social and economic development in the country. Actions in this area target both individual and collective microenterprises. SEBRAE12 has been one of the most relevant actors in this field, especially when concerning the training and qualification of entrepreneurs.

SEBRAE has a role to play in supporting small entrepreneurs to formalize their businesses, showing the way and presenting them with solutions, with the aim of facilitating the access to financial services, technology and the market. Through training and capacity building SEBRAE offers entrepreneurs knowledge with which to develop their actions, projects, products and services in order to achieve a competitive, efficient and modern management of their small enterprises. As a result, SEBRAE offers a number of products, such as courses, consultancies, trainings, talks, seminars, events and publications with the aim of always disseminating relevant quality information.

12 SEBRAE (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas) – Brazilian Support Service for Micro and Small Businesses.
As a promoter of development, SEBRAE considers the access of small and micro enterprises to financial services essential in order to guarantee the perseverance of the entrepreneurs in the market and ensure business growth, as well as labor and income opportunities. Not being a financial institution itself, SEBRAE undertakes a number of actions in partnership with the government and financial agents to stimulate the creation of policies that allow for better access to these services. Thus, SEBRAE articulates the access between public and private financial institutions with small businesses; develops instruments and disseminates information regarding access to credit and other financial services; contributes to the strengthening and implementation of micro-financing institutions including credit cooperatives that work in partnership with small businesses; stimulates and supports mechanisms of small and micro business capitalization through societal participation, strengthening the venture capital industry as a thrust instrument for the sector; and, stimulates the development of credit guarantee systems in articulation with public and private entities.

8. Financial education

When addressed to the financial inclusion of the poor, the term financial education can be understood as synonymous to financial literacy. Both terms cover aspects related to the education of individuals directed towards understanding of financial products, services and processes, as well as the development of financial skills and competencies in individuals aiming to induce behavioral change that may lead to better comprehension of the choices surrounding the use and management of financial resources. Financial education can thus be understood as an educational practice aimed to support poor adults in the everyday use of their economic activities.

As seen throughout this paper, one of the major challenges of the BFP relates to the challenge of financially including beneficiaries into the formal economic system. While most microfinance programs aim to reduce poverty, the interests and strategies differ significantly among them. A significant number of programs tend to use financial education as an instrument of social inclusion targeting the poor, however this approach is not necessarily widespread, and certain financial education programs may subtly support the maintenance of the system status quo, where inequalities and socioeconomic asymmetries prevail.

Financial education and capacity building today has been largely outsourced by private sector financial institutions. This has meant that financial education
predominantly focuses on improving client capacities in order to increase banking efficiency, rather than actually developing skills and financial literacy among the social economic groups at the margins of the system. In other words, when financial education is structured as a capacity building or a training program, instead of an educational program, then it is often oriented towards the transmission of instructions and knowledge, rather than on formative action based on pedagogical principles, empowerment and transformation of individuals. Some authors have come to suggest that financial education be a human right, as financial literacy enables individuals to exercise their capabilities and freedoms.

Financial education programs face numerous challenges, among which we can identify: a) the right approach to introduce financial concepts in a way that empowers the public in the process of being educated to understand and use existing financial services and products to attain better lifestyles and skills to have control over these financial instruments rather than be controlled by them; b) increase the scale of financial education programs through the use of ICTs in order to reach larger groups of people that can be introduced to financial services and improve their financial inclusion in the formal system; c) provide financial education programs to rural and remote areas, where most of the population that has only recently been financially included lives and needs to be financially educated in order to support their own economic development and well-being.

A number of strategies aiming to empower individuals and include them in the system through financial education, tend to emphasize dialogue, community participatory approaches, stimulate critical thought, ensure that the knowledge taught is both meaningful and relevant to the local context and the way of life of the individuals in the learning process.

As mentioned, one of the major challenges surrounding financial education has to do with how financial institutions relate with the public they are allegedly including into the financial system. Many of the at a distance financial education programs today do not include microfinance programs specialized in small scale economic activities or in rural economic development, nor do they discuss financial education as an instrument of social and economic empowerment. According to a number of authors specialists on education for adults, adult learning is a process based on the construction of meaning from the individuals previous experiences, so that a new interpretation can be achieved. The financial education aimed for would induce what Freire called “consciousness” and Habermas called “emancipatory action”.

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Paulo Freire’s (1987) critical pedagogy aimed at providing the individual and community with the necessary critical instruments that would enable them to become conscious of the reality in which they belong, as well as the necessary skills to emancipate themselves. Freire believed in the social transformation of the poorer groups of society. For Freire, social change and social justice are fundamentally political processes, and as such he believed people should have control over their learning processes in order for them to become critical and socially participative. As such, previous knowledge and experiences should always be respected, valued and built upon.

A number of financial education programs worldwide have gone beyond merely disseminating knowledge and information and have begun training multiplier agents who support individuals and communities in their financial inclusion and empowerment processes. There are still some significant gaps that need to be bridged such as the absence of educational methodologies and pedagogical practices for adult distance learning, and the absence of critical approaches aimed at the emancipation of poor adults.

This is where the use of ICTs comes in, as technology is considered to be one of the most important and effective means of empowerment in poor adult communities as it allows greater access to knowledge and information. In addition, ICTs facilitate information and knowledge dissemination, and also allow the development of new skills and competencies. Having said that, most financial education programs are held in presence, and while ICTs are being incorporated into micro-financing through public info-centers and other forms of private access, the use of the Internet carries with it a number of access barriers – literacy, computer literacy, access to technology, elevated costs, among others, and other technologies are more user-friendly for these low socioeconomic communities, such as community radio, television, videos, cd-roms, pamphlets, and other means that facilitate the dissemination of knowledge to the targeted group.

When discussing the use of ICTs for financial education at a distance, the creative use of these technologies and the Internet. In Mexico, the “Compartamos Banco” makes use of short informational videos on savings, credit, budgeting, money management, becoming indebted, among others allows those with little or no knowledge to better understand the different banking processes and services available to them, reducing access barriers and facilitating comprehension through images rather than written words.
At a distance learning programs for financial education should present effective strategies liking the financial services provided by the financial institutions to the needs of their new or potential clients. Birochi (2010) suggests that adult distance learning programs should focus on large scale financial education programs, rethinking the use of ICTs as complementary to traditional models of education and learning. Birochi also argues that the focus of adult distance learning should be based on building the capacity of tutors and multiplier agents, rather than the students themselves, as these agents have the skills to adapt the methodologies pass on the knowledge acquired to the needs of their students. In addition, the use of ICTs allows a greater number of people to take part in the learning process, as these lessons on financial education need not be held exclusively in presence, nor are they limited to the city centers of large urban areas.

Financial educations programs, whether in presence or at a distance, that target low income groups are necessary in order to reduce the risks of over-indebtededness and inadequate use of resources. At a distance educational programs can be mediated by the use of ICTs and can generate additional benefits to traditional educational programs, help overcome challenges related to distance and displacement, as well as increase the scale and reach of financial education programs by enabling the inclusion of larger groups to take part in the education process, transforming at a distance financial education programs into more collective empowerment experiences.

Some of the potential results of such programs may include the increase in agility and regularity in the offer of services by the financial service providers, as well as greater capillarity of the services provided; greater adequacy of the services and programs offered in different local contexts, capacity building according to local productive interests, generation of integrated local economic development, adaptation of the knowledge and information to fit the needs and level of knowledge of the community; cost reduction in displacement and individual commuting by bridging the gap between the financial centers and the peripherical and rural areas, among others. In other words, the potential results of emancipatory financial education programs are significant not only for the financial institutions in the formal system, but also as a means of ensuring the secure and sustainable financial inclusion of these formerly marginalized poor adults.

Specifically in the Brazilian case, most individuals who have recently been included in the formal financial system through CCT programs reside in either rural or remote areas. As we have seen, without the proper incentives, CCT program
beneficiaries are unable to adequately become agents of economic development in their localities, as the actual investment and development take place in other areas. Financial education programs targeting these kinds of communities are necessary to ensure community well-being and development, but also support these recently included individuals in recognizing which existing financial services are most adequate to suit their needs, such as starting a savings account, or even accessing the various microcredit opportunities that exist, among others.

Furthermore, the existence of lan houses and internet info-centers in communities facilitates the development of community access points whereby they can initiate their socioeconomic emancipation. It is in these Internet access centers that youth and adults can come together and bridge the existing generational gap between them and benefit from each other’s knowledge and skills regarding the use of ICTs. The youth in these communities have the potential of becoming agents and facilitators of family and community cohesion and empowerment, as with the assistance of external mediators, are able to communicate the needs and gaps in knowledge of their elders, as well as support them in their learning process and multiplying their knowledge of financial education and resource management before they themselves are formally included in the system.

The importance of financial education programs for adults cannot be underestimated, nor for that matter, the involvement and engagement of a variety of actors (such as financial institutions, government agencies, NGOs, civil society associations, unions, churches among others) in the implementation of such programs. The ultimate goal of these programs should be to empower the poor recently included in the formal financial system to understand the services provided and assist them in the adequate management and use of their money. In addition, greater use and development of ICT channels that facilitate and support these objectives have to be invested in. While these goals may seem palpable, they have yet to become widespread practices and to a great extent, most at a distance financial education programs for adults are still mere facades for some institutions to improve their social responsibility pointers in their reports.

9. Lessons learned
Based on the information presented throughout this paper some important lessons can be learned from the Brazilian BFP CCT experience delivered through the branchless banking/correspondent banking network model.

9.1. **Upsides of BFP payment via correspondent model**

a) **Supports transparency, accountability and better monitoring conditions**

The correspondent banking system supports transparency as the CEF has to generate a monthly payroll to the Central Bank so that it may issue a bank order and transfer the money to the BFP account. Through this system, the MDS is able to constantly monitor the balance of the BFP account.

b) **Correspondent’s network decreases the implementation costs of the BFP**

The correspondent model has eased the BFP’s expansion due to the reduction of the BFP implementation costs. The ICT-based model of branchless banking generates efficiency gains from saving on infrastructure and human resources. The correspondent banking model is also scalable and can integrate capabilities for delivering new financial services as is needed according to emerging local demands.

c) **Stimulates local economy through local consumption**

The BFP payment via the correspondent model stimulates local economy in the short term as it increases spending and consumption in local shops and warehouses. Investigations conducted in regions where the correspondent banking model brought the first local access to financial services emphasize relevant economic impacts due to the increase in local commerce consumption.

d) **Reduces the scope for political use of benefits and limits fraud**

The electronic BFP card used by beneficiaries reduces vote buying behavior at the local level. Through this card, the CEF is the only institution who has the control over the distribution channel of the CCT benefit. In addition, compliance with the BFP conditions is controlled by public servants, such as teachers and doctors in partnership with municipal government representatives, making it harder to fraud the system.

e) **Integration of CCT beneficiaries in the traditional financial system**

Since the correspondent model is operated by many players from the traditional financial system, its use as a channel for CCT benefit delivery is an important incentive to connect such programs with the governments’ financial inclusion goals. This
connection relies on the banking institutions’ (and other financial institutions involved) interest to develop better relationships and collect and use data produced at the correspondent level in order to encourage potential new clients among groups of beneficiaries.

9.2. Downsides of BFP payment via correspondent model

a) CCT payments made through an exclusive network

In the Brazilian case, as the CEF is a state bank and has been historically responsible for delivering government benefits of all kinds, it was a natural choice to make it the exclusive partner for managing the payment logistics for CCT programs. However, since the correspondent network is not exclusive to the CEF, and many other financial institutions can operate a similar infrastructure, it could be an interesting initiative for the government to analyze both the pros and cons of such exclusivity. Competition and bidding to manage the service over a determined period could attract the interest of other financial institutions, creating stimulus to improve the whole process and also increase its efficiency and stimulate the financial inclusion of beneficiaries, goals that could be established by contract between the federal government and the banking institution.

b) Long-term economic development

BFP benefit payment via the correspondent model stimulates the local economy in the short term, but it is not yet clear if it will promote economic development in the long-run. In order to promote social and economic development, BFP beneficiaries must be completely included in the formal financial system, having access to all banking services, such as overdraft, microcredit and insurance. In addition, if the BFP benefit is used as a collateral guarantee to expand access to credit, these resources could be invested in local productive chains ensuring more sustainable economic development.

c) Integration of mobile technology into the logistical process

Since cell phones are ubiquitous and have become a common device in the hands of all, including the poor, it is clear that it should be considered as a payment channel for CCT programs. In the Brazilian case, although studies conducted by the MDS have indicated that two thirds of the BFP beneficiary families have access to cell phones the entire program is still based on electronic cards. Nonetheless, pilot studies for mobile technology use are already being carried out by the MDS.
d) **Improve management capabilities of retailers operating as correspondents**

A significant part of the problems related to the difficulty of delivering CCT benefit payments through correspondents occur due to the inefficient management capabilities of small retailers. Common problems, such as the shortage of cash and also correspondent operation mismanagement, directly affect the CCT beneficiaries’ access to payments. Training and management support made available to small retailers could minimize such problems and guarantee higher level of efficiency in the payment logistics.

e) **Financial education and enforcement on consumer protection**

The same way CCT beneficiary families should have incentives to be financially included, they should also have access to financial education. Financial products are abstract and not always easily understood by recent financially included, making them highly vulnerable. Problems related to over indebtedness and the misuse of electronic cards are being reported in areas where CCT benefits are largely delivered.

f) **Poor infrastructure in remote areas**

Infrastructure problems as intermittent communication and electricity power instability significantly affect CCT payments in the most remote areas. Alternative sources of power and communication should be considered for areas with such vulnerability to ensure higher levels of CCT program delivery.

### 9.3. Research questions to be considered

Tackling these points would significantly improve the correspondent banking network model and would make it a much more reliable logistical channel for CCT program benefit payments. All the points listed above are a matter of government policy concern but also require the involvement of financial institutions and civil society organizations in order to be fully overcome.

Researchers in areas such as the social sciences, information sciences, business administration, and many others have the opportunity to make relevant contributions to improve the CCT programs payment logistics, investigating social and economic impacts, the use and implementation of ICTs, business models, financial behavior and many other issues related to this very important instrument for fighting poverty.
Remaining concerns to be addressed:

**Supply side**

a) Role of regulators in the dissemination of electronic payment methods  
b) Incentives and obstacles faced by financial institutions in exploring low income markets  
c) Technology infrastructure improvements in the correspondent banking model that need to be made in order to guarantee payment efficiency  
d) Develop mobile payment clearing process models to be implemented  
e) Investigate innovative business models and network integration organization alternatives

**Demand side**

a) Adoption of electronic payment methods by the low income population  
b) Design financial education models that can be implemented and replicated  
c) Development of financial services that are more suitable to the poor  
d) Impacts on local economy due to the expansion on financial services  
e) Creation of incentives for low income population to fully use bank accounts and formal banking services

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Caixa Econômica Federal: www.caixa.gov.br
Ministério do Desenvolvimento Social e Combate à Fome: www.mds.gov.br
SEBRAE: www.sebrae.com.br
Appendix 1 - Bolsa Família Expansion

- Municipalities with more than 2228 families under BFP
- Municipalities between 978 and 2228 families under BFP
- Municipalities between 412 and 978 families under BFP
- Municipalities with less than 412 families under BFP

Source: [www.mds.gov.br](http://www.mds.gov.br), Ministry of Social Development and Hunger Eradication, 2011.
Appendix 2 - BFP Conditionality

In 2011, BFP provides between R$22 (US$13) and R$200 (US$120) monthly for low income households if they meet three conditions: (i) regular visits to the health care system, (ii) children regularly attend school, (iii) children and teenager between 6 and 15 years old under risk of child labor must regular attend to Serviços de Convivência e Fortalecimento de Vínculos - SCFV of Programa de Erradicação do Trabalho Infantil – PETI (Eradication of Child Labor Program), coordinated by Secretariat of National Citizens’ Income (see Table 1). While health care conditionalities target pregnant and lactating women as well as children under 7 years old, education conditionalities focus on children between ages of 6-15 (85% school attendance required) and teenagers between ages of 16-17 (75% school attendance required).

<table>
<thead>
<tr>
<th>Sector</th>
<th>Conditionality</th>
<th>Targeted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>Vaccine Schedule; Regular health check ups and growth monitoring of children; Pre-natal checkups; Post-natal checkups; Participate in educational health and nutrition seminars offered by local health teams</td>
<td>Children under 7 years old Pregnant and Lactating Women</td>
</tr>
<tr>
<td>Education</td>
<td>Enroll all children ages 6-15 in school; Guarantee at least 85% school attendance children ages 6-15; Guarantee at least 75% school attendance teenagers ages 16-17</td>
<td>Children ages 6-15 Teenagers ages 16-17</td>
</tr>
<tr>
<td>Social Protection</td>
<td>At least 85% attendance to Serviços de Convivência e Fortalecimento de Vínculos-SCFV of Programa de Erradicação do Trabalho Infantil – PETI</td>
<td>Children and teenagers under 16 years old under risk of child labor</td>
</tr>
</tbody>
</table>

Source: [www.mds.gov.br](http://www.mds.gov.br), Ministry of Social Development and Hunger Eradication, 2011.
### Appendix 3 - Type of Benefit

**Families with less than R$70 (US$42) per capita per month**

<table>
<thead>
<tr>
<th>The number of children up to 15 years old</th>
<th>The number of teenagers between 16 and 17 years old</th>
<th>Type of Benefit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td>Basic</td>
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<td>Basic + 2 variables</td>
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<tr>
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<td>0</td>
<td>Basic + 3 variables</td>
<td>R$134.00</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>Basic + 1 BVJ</td>
<td>R$101.00</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>Basic + 1 variable + 1 BVJ</td>
<td>R$123.00</td>
</tr>
<tr>
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<td>1</td>
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<tr>
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**Families income between R$70 (US$42) and R$140 (US$90) per capita per month**

<table>
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<th>Amount</th>
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<td>R$ 88.00</td>
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<tr>
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