The Role of ICT in the Microfinance Model of Brazilian Banks and the Use of Banking Correspondents

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Abstract: This paper aims to further the knowledge on how ICT (Information and Communication Technology) contributes to integrate commercial banks and MFIs (Microfinance Institution) through banking correspondents (BC) technology by identifying the viable models and analyzing their potentials and limitations. Concepts of microfinance and BC are presented, as well as five cases of use of BC in Brazil. Based on the analysis of these five cases, we identify three distinct models that summarize the different forms that BC has connected commercial banks and the low-income population using technology, overcoming barriers and challenges of sustainable development as far as it contributes to the inclusion of the poor people into the bank system.

Keywords: Microfinance activity, banking correspondent, microcredit, development

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1. INTRODUCTION

Two major phenomena have drawn attention of the financial sector in recent years. The first one, related to the development of microfinance markets, is occurring worldwide. The interest of commercial banks in the microfinance universe, one traditionally dominated by NGOs (Non-governmental organization), has grown since the 1990's (Alves and Soares, 2006; Latiffe, 2006; Van der Putten, 2006). This interest may be attributed to the competition in the traditional banking markets and the search for the success and low default rates achieved by institutions specialized in microcredit.

The second phenomenon, one more specific to the Brazilian banking market, is related to the huge growth observed in the so-called banking correspondent (BC) terminals as a bank service channel. A result of the intensive use of information technology in banking in Brazil, BCs are service points set up at non-banking facilities, such as supermarkets, drugstores, lottery shops, post offices, and several other types of product and service retail shops.

Although both phenomena, microfinance and BC, are initiatives aimed at extending financing services to low-income population, it is worth noting that they have developed independently. In general, BC is associated with the initiative of traditional banks, for which microfinance still constitutes a marginal activity.

Therefore, the main objective of this paper is to further the knowledge of how ICT (Information and Communication Technology) contributes to integrate commercial banks and MFIs through the BC structure by identifying the viable models and analyzing their potentials and limitations. Delivering financial services to the poor helps to reduce poverty and, thus, to foster the development of the country.

2. BANKS, MFIs AND TECHNOLOGY

The microfinance sector initially developed from NGOs has evolved along the 1990's with the arrival of for-profit companies, constituting a segment of microfinance institutions (MFIs) operating outside the traditional financing sector. These MFIs are characterized by focusing on the offer of a single product: microcredit, with no or very little offer of other products (savings accounts, insurances among others). The main competence of MFIs is the specialization in methodologies involving typically the substitution of real guarantees by social collaterals to control loan default, as, for example, solidary guarantee or neighbor's guarantee. In general, MFIs have a credit agent

and are characterized by the use of technology to support their operations (Diniz, 2007; Kumar et al., 2006).

If until recently MFIs were practically exclusive in the microfinance universe, the interest and the participation of traditional financing institutions in this share of the market, particularly banks, have grown (Rhyne and Otero, 2006).

With the advantages of scale, abundant access to funding, the extension of their presence through branches and service outlets, and the control of a complex network through a sophisticated technological base, traditional banks have a potential to further and modify the low-income population financial market significantly (Diniz, 2007; Kumar et al., 2006). The recent activity of traditional banks in this market makes them newcomers in a market based on extremely low values and clients without formal guarantees.

Although the operation models are not clear yet, it seems that the resources and the limitations of commercial banks and MFIs are complementary. Banks are larger, are present all over the country, and have expertise in the use of information technology, while MFIs have the expertise necessary to access the low-income clients and master the microcredit methodologies. Furthermore, banks may also contribute to increase the variety of services offered by MFIs, which is centered on microcredit. BC seems to be the technological infrastructure that may integrate commercial banks and MFIs. Although MFIs have been allowed to work as correspondent institutions since 2003, few have done so (Diniz, 2007; Kumar et al., 2006).

Rhyne and Otero (2006) believe that the use of information technology, an area that banks master, will result in significant changes in the way microfinance operations are carried out at present and they point to three areas where these changes will be most critical: payment systems, credit methodologies, and support operating systems.

In Brazil, this technology improvement use can be seen as the BC concept has gained new dimensions driven by the flexibilization of regulations. Since 1999, the correspondent is a non-banking institution, such as bakers', drugstores, supermarkets, and other kinds of retail shops that commonly offer financial services on behalf of a financial institution. These services include the payment of bills, receipt of government benefits, opening checking accounts, withdrawals, credit operations, and others.

It is impossible to separate the technological requirement that supports this model from the BC concept. Although the technology involved is not innovative in itself, the way it has been incorporated to the correspondent model is considered unique for its reach and scale, the quality of services offered, and the new technological platforms that make the offer of such services possible (Kumar et al., 2006, p. 10). In respect to the technological platform, POS (point of service) equipment is installed at the shops hired as correspondents. The basic POS equipment may be replaced by a personal computer (PC) and/or combined with other devices such as bar code readers and numeric keyboards, ATMs (Automated Teller Machine) etc, depending on the level of services offered by each correspondent. These terminals (POS or PC) are normally connected to the

contracting bank servers through Internet dial-up lines or fast connection, GPRS (General Packet Radio Service, a mobile telephony data transmission technology), or through satellite. Data transmission may be performed on line or at set day times, depending on the complexity of the services and the structure offered at each correspondent.

Correspondents have become the main strategy for the access to banking services by low-income population. To an extent, the marked growth of this banking channel has been enabled by the expansion of the telecommunications infrastructure in Brazil, which was accelerated in the second half of the 1990's, along with the fact that the Brazilian banking sector stands out in the world for the use of ICT. As a result, although the BC model is not a novelty (given the post office bank long in place in several countries), the Brazilian model is considered entirely new in the reach, scale, and flexibility afforded by its use of technology (Kumar et al., 2006).

Moreover, all commercial relationships between the banks and the outlets are largely carried out by contractors called network integrators, which allows the banks to attain a much higher level of capillarity than that of the ATM network, for example. These network-administrating companies are responsible for the technological infrastructure maintenance and operation support, training, maintenance, and in many cases, the selection of banking correspondents. In that case BCs benefit from their technological structure because the terminals used are changed from simple POSs to thin client stations to full PCs with the use of peripherals such as printers and scanners.

4. STUDY CASES

This section presents five cases selected because they correspond to the most important bank iniciatives in the microfinance area in Brazil. It was adopted a multiple case study methodology, which is rather useful to obtain a general understanding of a given situation (Benbasat et al. 1987). Data collection included ten recorded in-depth interviews (average of 90 minutes each) with senior managers, as well as field notes taken in late 2006 and throughout 2007.

The 10 interviewees were selected because they belong to the "Dominant Coalition". Cyert and March (1963) propose that the organizational goal are largely set by a negotiation process among members of dominant coalitions pursuing certain interests.

The interviewees were stimulated to report experiences and attitudes relevant to the issue under investigation (Walker, 1988). A brief description of each of the cases studied follows.

1.1

1.2 4.1 Banco Lemon

Founded in 2002, Banco Lemon has all its services provided through BC terminals installed in business centers, drugstores and other shops. Banco Lemon has, in 1,500

municipalities, a rather extensive network, with 6,500 correspondents, most located in the suburbs or in poor downtown neighborhoods.

Loans targeted at low-income individuals and enterprises delivered through BCs are included in Banco Lemon's product strategy, but they still have a very marginal share.

The correspondents' network is managed by 16 network-administering companies. The so-called network integrator is responsible for selecting, licensing and unlicensing, training and controlling the retail companies that will work as correspondents. They are also responsible for installing the POS equipment and sets up the communication link (GPRS or dial-up line) at the correspondents' facilities.

1.3

1.4 4.2 Banco do Brasil

Banco do Brasil (BB) is one of the largest and the oldest public banking institution in Brazil, with 20 million clients. In 2003, BB created the Popular Bank of Brasil (Banco Popular do Brasil), an exclusive subsidiary with BCs to attend the low-income population. The model adopted by BPB to implement BC is based on the use of intermediates, the network integrators. BPB uses BB's technological platform and all operations are concentrated at BB's technological center.

BPB has a partnership with social organizations providing them credit lines and technology. These social organizations take the responsibility to distribute it and use their own methods of credit supply and credit management. Example of this model are the partnership between BPB and a social institution is Banco Palmas, which operates in the Northeast Region.

These entities credit supply systems were improved with the technology of a payment system that allows resources to flow in a larger volume with a larger number of transactions.

1.5

1.6 4.3 Banco do Nordeste do Brasil

Banco do Nordeste do Brasil (BNB) is a public development bank whose social function is to finance investments and projects with potential to benefit the economic development of Northeast Brazil. To this end, the Bank created a broad microcredit program called Crediamigo in 1988. With 825 thousand operations and R$794.2 million in credit loans, Crediamigo is currently the largest microcredit program in Brazil.

From the operating viewpoint, the program is managed through partnerships between BNB, which provides funding and methodology, and different civil society organizations

of public interest (Oscip in Portuguese) trained by the Bank in the use of the methodology and who are in charge of hiring credit agents and operating the program on behalf of the Bank. There is a low use of technology in the process. The BNB is the only case studied herein that is not integrated with BCs yet.

1.7

1.8 4.4 Unibanco

Unibanco was founded in 1924, and in 2003 started activities in the microfinancial segment when it bought Riocred, an MFI in production microcredit since 1998. When it was merged into Unibanco, it was renamed Microinvest and became the group's microfinancial segment. Microinvest offers production credit in low-income urban districts, mainly in São Paulo and Rio de Janeiro, through traditional credit agent methodology.

In terms of technological infrastructure, Unibanco operates two types of BCs: a single POS, which is used in small retail correspondents with a single facility and the use of the partners' own ICT infrastructure in the case of a correspondent company with several shops and its own ICT network (retail outlets besides Fininvest, the group's financer).

The use of BCs concentrates heavily on bill payment services. It has approximately 2,100 BC points that receive about one third of all bills and payment slips. It does not have a policy for the use of the BC network for other services or products.

1.9

1.10 4.5 ABN Amro Real

An international bank with a strong presence in Brazil, ABN Amro Real was purchased by the Santander Group in 2007. It has a network of approximately 1,700 BC points distributed in several regions of the country, normally in urban or low-income rural areas. At present, the network is used only for bill and payment slip payments and to providing production microcredit.

ABN Amro Real's microcredit operation started in 2002 with the Bank's initiative in the corporative social responsibility area. Although according to the interviewees the operation is sustainable and profitable, it is not expected to provide the Bank with the same level of return of commercial credit portfolios.

V. DISCUSSION

As we can notice, there are different ways to integrate commercial banks with microfinancial services through BC. Moreover, most is based on the intensive use of

technology to promote social inclusion of the population from the poorest areas in Brazil, providing them access to microfinance services.
Regarding the role of banks and ICT in the expansion of MFIs, as Diniz (2007) and Kumar et al. (2006) state, in general, MFIs have a credit agent and are characterized by the use of technology to support their operations. The studied cases, excluding Banco Lemon, are examples of how BC technologies, provided by commercial banks can improve microfinance services to the poor.

On the other hand, the cases presented herein show that commercial banks could benefit themselves from the partnership with MFIs, which have the expertise necessary to access low-income clients and master the microcredit methodologies, confirming Rhyne and Otero's theory (2006).

Regarding to the Brazilian experience and the potential of the BC technology in the expansion of MFIs, we can say there are different models of how BCs integrates MFIs and banks, as explained on the next section.

VI. FINAL CONSIDERATIONS

The analysis of the five cases presented affords a map of action of the models being structured by Brazilian banks operating microfinance through the technology of BCs. As a preliminary conclusion, it is possible to identify the occurrence of three basic models, to know:

- ✓ Model 1 – direct action: The bank provides its financial services directly, although part of the infrastructure is available through intermediates, the network integrators. This model evidences a greater integration between BCs and microfinancial services, and banks act without the intermediation of a dedicated MFI. Banco **Lemon** clearly fits this model.

- ✓ Model 2 – MFI partnerships, bank's risk: It is the most frequent model in the banks investigated, adopted by **BNB**, **Unibanco**, and **ABN Amro Real**. Microfinancial services are provided by an appointed MFI that operates as a bank intermediate, providing funding and methodology for the distribution of microfinancial services, especially credit. In two cases (Unibanco and ABN Amro Real), the MFI is a bank subsidiary, and in the third one (BNB), the MFI is an external partner. Nevertheless, in all cases, the methodology and the technology is controlled by the bank, who also takes responsibility for default.

- ✓ Model 3: MFI partnerships, MFI's risk: this is the model adopted by **Banco do Brasil**. As in model 2, the presence of the bank in the microfinancial segment is intermediated by MFIs that operate as bank correspondents. In contrast with the previous model, the methodology and risk are responsibilities of the partner MFI, and not the bank's, but as in model 1, part of the technology infrastructure is available through intermediates.

The studied cases allow to state that, although the use of BC is still focused on payment operations, there are already experiences that suggest a greater supply of relationship services for low-income populations. Moreover, this helps to promote the development of poor regions, such as the microcredit delivery through the BC technology. It also acknowledges that this solution will greatly depend on technology and the businessess models earlier presented.

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