

# The Role of Information and Communication Technologies (ICT) in Improving Microcredit: The Case of Correspondent Banking in Brazil

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**Abstract**—Finding ways to efficiently downscale microfinance services is one of the current challenges of Brazilian commercial banks. As commercial banks do not have strong tradition or know-how in this market, the expansion of such operations still depends on the building of specific capabilities and creation of business and technological architectures. This paper discusses how the use of correspondent banking (CB) arrangements can help Brazilian banks to face this challenge and increase their microcredit operations in an efficient way. The particular model of CB adopted in Brazil since 2000 has created an ICT-based business structure for banks downscale financial services out of traditional branches, typically in retail stores such as supermarkets, drugstores, lottery shops, post offices, and so on. The discussion is on how this ICT-based channel can be adapted to scale microcredit delivery. To address the discussion, we focus on one particular case, involving a CB arrangement between Banco do Brasil, one of the most important Brazilian banking institutions, and Banco Palmas, an accredited microfinance institution. This specific case provides an elucidating example of how the Brazilian ICT-based CB model can be used to help scaling up microfinance services, especially microcredit.

## I. INTRODUCTION

Microcredit has been considered as a powerful instrument to fight poverty and create income opportunities for the low-income population, particularly in developing countries. Having surpassed the significant number of 100 million clients in 2006, microcredit is expected to be moving up, from merely the NGO-related operation it was years ago, to the mainstream of the financial market in the near future. The failure of some non-commercial microcredit initiatives and the recent interest of commercial banks in the universe of microfinance have created opportunities for the rise of new models for delivering microcredit by banks.

In Brazil, the growing interest of commercial banks in the microcredit business goes along with government regulations intending to disseminate small loans operations around the country. Despite all the interest and regulations, microcredit remains at a very low level of penetration in Brazil. Taking the estimated 8 million micro businesses in the country, only 2% to 4% of them are using some kind of microcredit loan [16].

At the heart of this microcredit's low level penetration in Brazil we note, among other factors, the limited comprehension about the well-functioning financial infrastructure or architecture and a network of other service providers necessary to the operation of Microfinance Institutions. More specifically a better knowledge about the

potential of the information and communication technologies (ICT), key component of the financial infrastructure mentioned above, can help microfinance achieve scale.

On the other hand, there is another phenomenon attracting attention for its high capacity to bring finance services to Brazilian poorest population: the recent success of the correspondent banking network. Fostered by regulation of the main Brazilian financial authority, Banco Central do Brasil, since 2000 commercial banks have been allowed to hire retail stores as partners to increase the distribution of financial services in areas poorly attended or even non-attended by the bank branch network. Compared with the steady number of 17 thousand bank branches in the country, the correspondent banking (CB) network has jumped from some 14,000 in 2000 to more than 70,000 in 2005.

Three recent studies [11]; [1]; [10], two of them related to the World Bank and the other by Banco Central do Brasil, have called attention to the growth of the CB in Brazil, connecting it with its potential as a channel for microcredit. Despite the importance of these studies, they don't go further in discussing the complexity of the adaptations that need to be made in order to have CB deliver microcredit.

In this paper we are going to present the case of Banco Palmas, showing how this MFI (Microfinance Institution) has built a partnership with a traditional bank (Banco Popular do Brasil, a subsidiary of Banco do Brasil, the biggest Brazilian bank in assets) through a correspondent network. This partnership between a traditional bank and a MFI has significantly improved microfinance services and microcredit offer to the low income population in a poor neighbourhood of Fortaleza, the capital of the north-eastern state of Ceara, in Brazil.

In this paper we will start presenting a brief introduction of microfinance, including a succinct overview of the history and current situation of microfinance in Brazil. Following, we will introduce the concept of microfinance's "meso level" and more specifically ICT as a key component of this "meso level" and concluding with importance and impact of ICT on the operation of Microfinance Institutions. In the next section we will describe the correspondent banking model giving special attention to the particular Brazilian adoption of this model. In the fourth section we will present the Banco Palmas case as an illustration of a partnership between a commercial bank and a MFI that are using current Brazilian ICT-based model of correspondent banking, among other things, as a vehicle to face the "meso level" challenges and expand the microfinance offer.

## II. MICROFINANCE

As remarked in [9], the ideas and aspirations behind microfinance are not new. Actually, they can be traced back to 15<sup>th</sup> century in Europe when the first pawn shop was created to counter usury practices. And since then, following the evolution of most societies and cultures, variations on the savings and credit theme could be observed almost all over the world.

In the 70s in Bangladesh, with the advent of experimental programs aimed to provide very small loans to groups of poor women to engage in self-employment projects, the term microcredit was coined. Subsequently, supported by the success of these early experiences, microcredit programs flourished worldwide all through the 80s.

Then, in the early 90s, the broader term microfinance, used to refer to a larger range of financial services designed for the poor, started to be used in place of the narrower term microcredit. The Consultative Group to Assist the Poor (CGAP), a coalition of public and private development organizations working to expand access to microfinance for the poor, developed a set of key principles meant to guide the implementation of effective, accessible and equitable microfinance services. The principles, presented bellow, were endorsed by Group of Eight leaders at the G8 summit in 2004 [9].

1. Poor people need a variety of financial services, not just loans.
2. Microfinance is a powerful tool to fight poverty.
3. Microfinance means building financial systems that serve the poor.
4. Microfinance can pay for itself, and must do so if it is to reach very large numbers of poor people.
5. Microfinance is about building permanent local financial institutions
6. Microcredit is not always the answer.
7. Interest rate ceiling hurt poor people by making it harder for them to get credit.
8. The job of the government is to enable financial services, not to provide them directly.
9. Donor funds should complement private capital, not compete with it.
10. The key bottleneck is the shortage of strong institutions and managers.
11. Microfinance works best when it measures – and discloses – its performance.

More recently, as observed at “Blue Book - Building Inclusive Financial Sectors for Development” [9], many development practitioners and financial institutions believe that we are in the midst of a paradigm shift from microfinance to inclusive finance. Inclusive finance recognizes that a continuum of financial services providers work within their comparative advantages to serve poor and low-income people and micro and small enterprises. Building

inclusive financial sectors includes but is not limited to strengthening microfinance and MFIs.

Leaving this new venue of inclusive finance for further discussions, for the purpose of this study we will work with the concepts of microfinance and microcredit. Microcredit meaning the provision of small loans to the lower-income population to finance production activity, loans which often ensure the economic survival of people who have no alternative means of income or work.

Also, to the extent of our research, is important to mention the concept of focused productive microcredit, as defined under the Brazilian Law Number 11,110 of 25 April 2005, as “the credit granted to meet financial needs of individuals and business performing minor production activities”. Fig. 1, extracted from [1], shows the definition and scope of the terms microfinance and microcredit adopted for this study.

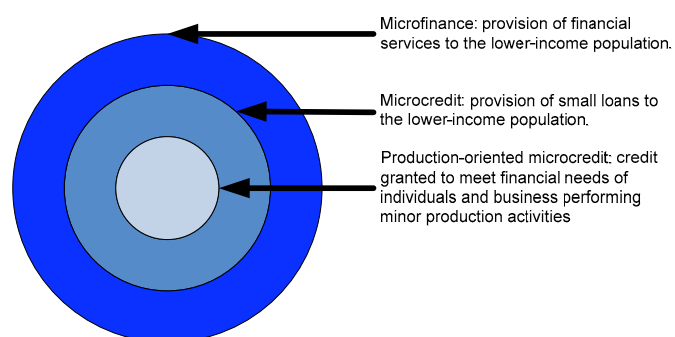


Figure 1 - The concept of microfinance, microcredit, and focused productive microcredit

Source: Alves e Soares (2006)

## III. MICROFINANCE IN BRAZIL

Microfinance activity in Brazil started in the 1970s, preceding in time even the foundation of Grameen Bank in Bangladesh, which is recognized as the original, ground-breaking microcredit experience in the world. From its origins to the late 1990's, the activity was performed by a very limited number of NGOs, and was not as issue of public policy. Even considering that some of these initiatives have been successful at an individual scale, the aggregate industry size remained in practice insignificant, or “*almost inexistent*” [2].

Only in recent years, these first entrants were joined by other MFIs, such as Small-Business Credit Societies (SCMs in Portuguese) and Civil Society Public-Interest Organizations (OSCIPs in Portuguese), as well as credit cooperatives. Being for-profit organizations, SCMs are subjected to the Banco Central scrutiny. In 2006 Brazil totalled 190 active microfinance institutions, which included 50 SCMs, four NGOs, and 131 OSCIPs.<sup>1</sup>

<sup>1</sup> According to ongoing research performed by FGV-RJ's Brazilian Business Management and Public Administration School (EBAPE) (preliminary data presented in the Fourth São Paulo Microfinance Forum, São Paulo, March 3, 2007).

Although these providers are quite different in terms of legal status and business models pursued, they have in common the use of credit-granting methodologies and risk-mitigation procedures based on the concept of *focused productive microcredit*. These methodologies typically involve substituting real guarantees for social collateral to control delinquency; an example of this would be a joint guarantee or a neighborhood guarantee. They also involve a specific way of delivering credit, using a **credit agent** as an intermediary between the institution and the borrower; this is because the latter usually needs to be guided or advised with regard to his or her need for productive credit or how to use the funds lent. The main characteristic of this model is the systematic and frequent relationship between the microcredit institution and the borrower, through the credit agent, to support the management of the business and to educate the client.

Consequently, microcredit is a very specific type of business within the credit market. Risk is mitigated by adopting methodologies that replace asset guarantees, accounting records, and formal projects with mechanisms based on personal and group trust, on informal knowledge of the client and his or her business, and on personal relations between the agents and the clients. All this is based on information on the client and the business collected *in loco* by the credit agents [17].

One has to recognize that because of its very specific nature, microcredit has been expanding through the intensive work of specialized companies and institutions. In Brazil, MFIs not only fail to benefit from a suitable legal infrastructure, but they also miss what is called “demonstration effect” [16]. Successful organizations in this business would exercise a “demonstration effect” to the market by presenting proven strategies, operating models, and business practices that could be learnt and adopted by other interested parties starting microfinance activities. According to these authors, in Brazil a number of MFIs do not follow accepted accounting practices, which hinders computation of performance indicators and the publication of financial statements, all of which render the “demonstration effect” impracticable.

More recently, traditional players in the microfinance industry (NGOs, OSCIPs, SCMs, and credit cooperatives) have been joined by new ones. These are commercial banks, which increasingly invest in products and services specifically designed for low-income customers, including, in many cases, microcredit.

One of the reasons for the involvement of commercial banks in this arena was CMN’s Resolution 3109, issued on July 24, 2003, which later became Law no. 10,735, dated September 11, 2003. This Act determined that banks had to set aside two percent of their cash deposits for microcredit transactions; otherwise these funds would have to remain in non-interest bearing deposits. Although this law was enacted nearly four years ago, until now most banks have not complied with this regulation and have preferred to leave

their cash deposits in treasury, claiming they do not have specific capabilities to offer microcredit [11]. Nonetheless, we can find some examples of banks that, for a number of reasons, have started operating in microcredit: State-owned institutions, such as Banco do Brasil and Caixa Econômica Federal that joined the microfinance market as part of the governmental policy; a second group of banks, which is the case of ABN Amro Real, that started providing microcredit as part of their corporate social responsibility policies; and finally, a third group of banks (Unibanco, Lemon Bank) which had primarily commercial motivations to join the microfinance market.

#### IV. MICROFINANCE AND ICT

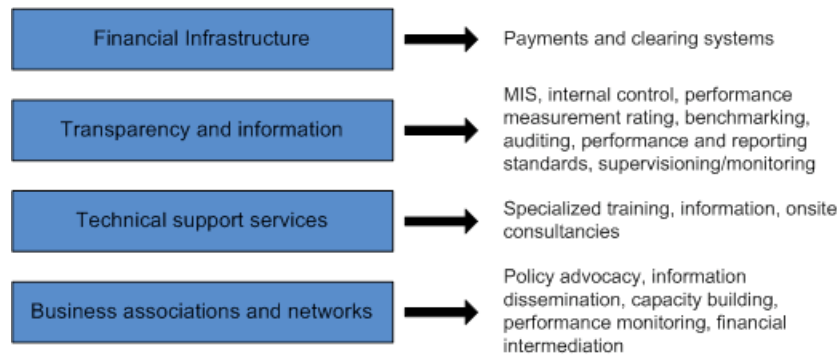
The continuous and growing penetration and implication of information and communication technologies (ICT) into the financial services industry during these last decades are a well documented and undisputable reality. Nevertheless, different categories of financial service providers have obtained very distinctive results concerning the expected increase in productivity and in business performance due to large investments in ICT.

In one side of the spectrum, institutions like investment banks and insurance companies have successfully capitalized over their ICT expenditures contrasting with retail banks that have not fared so well [5]. The retail bank sector, studied by Harris (2001) as an example of the IT productivity paradox, faces the consequences of a banking technology that becomes constantly more affordable allied with the broad erosion on entry barriers into banking business.

This disparity in results among the different financial institutions are in most part resultant of different levels of understanding between the organizational innovations necessary to complement new investments in technologies as observed by Castello and Danel (2006). Also, as remarked by Griffiths and Remenyi (2003) financial services organizations should aim their IT investments at supporting product differentiation and at producing ease of search for their customers and prospects.

Without disregarding the differences between microfinance and traditional financial services providers, the previously presented conclusions are totally transposable to the microfinance universe. Defined by Brigit Helms [9] as “meso level”, the well-functioning financial infrastructure or architecture and a network of other service providers necessary to the operation of Microfinance Institutions is possibly the least understood component of the financial system within the microfinance community.

Figure 2 depicts the “meso level” dividing it into four tiers: financial infrastructure, transparency and information, technical support services and business associations and networks. Observing Brigit Helms’s model, it is impossible to not perceive ICT as a major component of the so called “meso level” and consequently a key component that must have its role and implications well understood.



**Figure 2 - Meso Level: Financial Infrastructure and Services**  
Source: Brigit Helms (2006)

This lack in understanding becomes flagrant witnessing that, still nowadays, many of the ICT solutions in use by MFIs are adaptations or extensions of commercial banking products and consequently not well suited to some special features of microfinance [18]. The necessity of suitable and sophisticated back-office MIS taking into account the fundamental ways microfinance differs from traditional financial services and not neglecting specific products offered, clients that are served, operational environment and non-financial information that needs to be recorded and tracked [13].

Furthermore, ICT play a fundamental role in implementing and adjusting in-house credit score models and loan appraisal. Besides that, monitoring systems well suited to the micro-entrepreneur clientele are not only a necessity for microfinance business activity but also a point for building a partnership and cooperation between MFIs and traditional financial institutions [10].

The introduction or adaptation of new technologies that are still under adoption on the traditional banking sector, as for example, personal digital assistants, interactive voice response systems and smart cards, just to mention some, can act as instruments to overcome existing limitations of the microfinance market. Smartcard based solutions, can be used to mend the absence or limitations of national identification systems bringing ease of use and security and, at the same time lay out a foundation for a positive credit bureau [10]; [13].

However, it is very important to be aware that the possibility and opportunity to use integrating technologies that will help microfinance achieve scale will only be sustainable when there is a large enough volume of participants in the system [7].

Although being the best world example of successful microfinance institutions and their integration with the formal financial industry, the Latin America shows a scenario where the big countries (Brazil, Mexico and Argentina) present a very low penetration of microfinance institutions on their huge microenterprise clientele. These low numbers from the big-countries of the region contrast with the number coming

from small ones such as Bolivia, Nicaragua, El Salvador and Paraguay [5].

Yet, independent of their size and microfinance sector success, microfinance institutions in Latin American countries face the same issues confronted by microfinance institutions worldwide and the importance of the “meso level” and consequently of the information and communication technologies (ICT) are also a high stake.

## V. CORRESPONDENT BANKING

Traditionally, the term correspondent banking refers to an agreement between two banks in which one (the correspondent bank) accepts deposits and renders services on behalf of the other (the respondent bank) a concept initially established to support trade in medieval Europe to eliminate the risk of transporting gold coins [6].

Until the 1980s, correspondent banking represented a substantial source of revenues for banks involved in the fund transfers business between countries. However, with the advent of international electronic payment systems correspondent banking gradually lost its importance, although it is still used extensively [6]; [19]; [4].

Correspondent banking was also a way for banks to expand geographically, or diversify their distribution channels [20]. In fact, the very description of correspondent banking – a bank rendering services to another bank – is increasingly less appropriate [21]. In practice, present-day correspondent banks usually perform a much broader role in the financial universe, either because of changes in the profile of the partners or because of the services offered [15].

If the correspondent banking business in developed countries is still close to its origins, providing bank-to-bank relationships and payment services, mostly fund transfers abroad<sup>2</sup>, in developing nations wholly new approaches are

<sup>2</sup> Throughout this study, much research was done in international academic article databases on the topic of correspondent banking; this resulted mostly in articles on the correspondent business between banks and payment services.

emerging. Advances in information technology have created new networking possibilities among various types of organizations, thus enabling the development of new forms of correspondent activity. The result of all this was the advent of the correspondent banking model carried out in Brazil, in which the correspondent must be a non-bank entity.

## VI. CORRESPONDENT BANKING IN BRAZIL

Some aspects intrinsic to the Brazilian economy affect the delivery of financial services to low-income populations in the country, resulting in a significant lack of banking facilities. These aspects include the banks' high overheads, significant barriers of entry to newcomers, the continental size of the country, the heterogeneous distribution of the population, and the diversity of economic activities. At the same time, the large retail banks are facing aggressive competition and have a high level of integration both inside and outside the bank, which enables them instant connection anywhere in the country. In this environment, correspondent banking represents an outstanding opportunity to attract customers at a very low cost.

While the first legislation allowing the establishment of CB in Brazil dates back to 1973, the greatest changes took

place in 1999, with CMN's Resolution 2540, and in 2003, with Resolutions 3110 and 3156 [1]. The last two resolutions, in particular, consolidated all previous regulations on this matter and represent the current legal framework for correspondent activity.

The resulting correspondent banking model is unique *"because of its reach and scale, the quality of the services provided, and the new technological platforms that have enabled these services"* [11].

Correspondent banking is rapidly becoming one of the main strategies for extending banking services to the low-income population. With the legal push described above, all the largest banks and some medium-sized banks have started implementing correspondents and plan to reach nearly 40 million Brazilians who have no access to banks today [8]; [3]; [20].

Nowadays, the number of CBs is more than fourfold the 18,000 regular bank branches installed in Brazil (Figure 3). Some studies also show that the use of correspondents has been increasing progressively, no matter the criteria adopted: seven percent a year in the number of points of service, 20 percent a year in the number of transactions, and more than 100 percent a year in the amounts transacted [1].

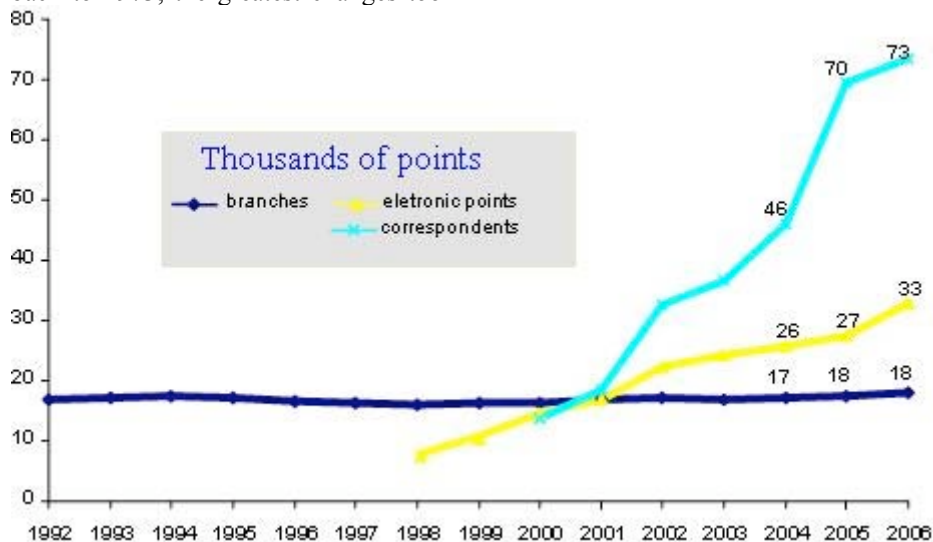


Figure 3 - Correspondent banking: 2000 to 2005 growth (in thousands of points)

Source: Febraban (Brazilian Bankers Association)

Almost all large banks operating in the Brazilian market, as well as many medium-sized banks, have set up points of service at a broad range of partner businesses: post offices, lottery retailers, supermarkets, pharmacies, bakeries, fuel stations, grocery stores, and a number of other retailers, which have become distribution channels for the banks' services. The experiment has even been extended to the installation of a correspondent within urban buses. Since the legislation was designed to take banking services to locations or people that would otherwise not have access to the traditional financial system, no company can be established

to solely perform the role of correspondent. Moreover, correspondents must be engaged in non-banking activities.

Besides using these correspondents, banks are able to set up service points in poor areas of large urban centers, within a three-year period; banks filled the gap of locations without any banking attendance. From 2000 to 2003, nearly 1,700 Brazilian towns (out of a total of 5,560) that were unnerved by banks, managed to have access to financial services through the implementation of correspondent banking [20]. The list of services provided by these correspondents is quite extensive. They accept payments, open accounts, provide

balances and statements, transfer funds, pay out social security benefits, and perform many other services, including the approval of loans [8]; [20].

The advent and growth of the correspondent banking model can be considered the greatest technological phenomenon in the Brazilian banking industry since the arrival of internet banking. In recent years, this model enabled Brazilian banks to expand their service network on an unprecedented scale. They multiplied the number of service points without incurring the costs associated with the operation of traditional branches or mini-branches. Moreover, considering that a sizable share of the partner businesses are in poor communities or remote municipalities, the model turned out to be an efficient tool for taking financial services to the poorer segments of society, and putting Brazil at the center of discussions on microfinance and broad access to financial services [11]; [10].

## VII. THE BRAZILIAN ICT-BASED MODEL OF CORRESPONDENT BANKING

Through a phase of restructuring in the earlier CB models [21], on the one hand, the banking system's deregulation processes have enabled the expansion of these services [14]. On the other hand, the development of information technology represents a threat to the traditional operational method, focusing on payment services [4], as well as an opportunity to expand service offerings, allowing the leverage of the large banks' technological resources.

In the Brazilian CB model, banks have a point-of-service (POS) machine installed on the premises of the retail businesses hired as a correspondent. This basic POS machine can be replaced by a personal computer (PC) and/or combined with other equipment, such as barcode scanners, keypads, ATMs, etc., depending on the level of service each correspondent provides. These terminals (POSS or PCs) are usually connected to the servers of the bank that has hired the correspondent via dial-up or broadband internet connection, GPRS (General Packet Radio Service, a data transmission technology for use in cell phones), or even satellite connections. Data can be transmitted online or periodically, at set times during the day, depending on the complexity of the services and structure provided at each correspondent's premises. The network connection between banks and retailers hired as correspondents are usually managed by integrator providers, which set up the equipment at the CB point, manages the training of the retail employees and maintenance of the whole operating process of data transfer from the CB terminal to bank systems.

## VIII. THE BANCO PALMAS CASE

In this section we describe one particular microcredit experience which has benefited from the use of the ICT-based CB channel as a vehicle to face the "meso level" challenges and expand the microfinance offer. The case

involves an innovative use of the CB technology, making operational a business architecture involving two partners: Banco do Brasil, one of the largest and most important Brazilian banking institutions, and Banco Palmas, an accredited microfinance institution operating in the northeast region of the country. The information presented herein was obtained mostly through interviews carried on with representatives of both institutions in order to investigate how the partnership was built and how it has taken advantage of the CB channel to offer microcredit.

Banco Palmas started its operations in 1998 at Conjunto Palmeiras, a peri-urban slum neighbourhood of 30,000 inhabitants located in the outskirts of Fortaleza, the capital of the state of Ceará in northeastern Brazil.

The Banco Palmas project is closely connected with the history of Conjunto Palmeiras, and the neighbourhood association named ASMOCONP (*Associação dos Moradores do Conjunto Palmeiras*). Born in 1973, as a result of the displacement of 1,500 low-income families that were not desired anymore in the central areas of Fortaleza, Conjunto Palmeiras was merely an empty area located 22 kilometers away from the city center, distant from jobs, schools and all urban facilities, with precarious access to urban transportation, and without access to vital public services. Founded in 1981 by local community leaders, ASMOCONP organized the demands for a series of infrastructural improvements. By the end of the 1990's, as a result of almost two decades of continued efforts through organizing protests, lobbying the authorities and partnering with international NGOs, the Association achieved to bring public services such as water and power, asphalted roads and waste management to Conjunto Palmeiras, and the former slum could have access to its basic needs.

In spite of all this, social indicators in the community were reaching more and more critical levels. In the late 90's, since improvements had been made without a correspondent growth in income, the neighbourhood was expelling its own residents. At that time, it was detected that a considerable number of families had started to put their houses in the market and leave the community, because they could not afford the public fees which had come along with the new urban infrastructure. These circumstances led ASMOCONP to redefine its priorities. With most of the physical, infrastructural problems out of the way, it was time to urgently find strategies for income generation that could help reducing the high social risk faced by the community. The idea of microcredit then became one of the main Association's priorities and Banco Palmas was created by ASMOCONP to manage this new financial operation for the community.

Banco Palmas started its lending operations in January 1998, with an initial capital endowment of only 2,000 Reais (US\$ 1,800), donated by Cearah Periferia, a local NGO. Additional funds were obtained from other local and international NGOs during the first six months of operation, totaling 30,000 Reais (US\$ 17,000) that were destined to

microcredit loans as a way of creating income-generating opportunities.

However, due to the lack of professional qualifications among the community members, it was considered that a microcredit strategy in Conjunto Palmeiras would only be sustainable if accompanied by complementary capacity-building actions. Microcredit became thus a central piece of a larger puzzle of activities, with the aim of producing local development. The project's central philosophy consists in creating what is called a "solidarity network" integrating local producers and consumers, in such a way that the greatest possible portion of the local wealth circulates locally, remaining in the community instead of generating income and employment outside. With this purpose, of the crucial characteristics of the Banco Palmas' microcredit model is the fact that the loans are issued in Palmas, a proprietary "social currency" that circulates side by side with the official Brazilian currency (Real), and is accepted by the local merchants. Palmas are backed by Reais at a one-to-one parity, which means that for each Palma in circulation there is one Real held in reserves by the Banco Palmas.

Banco Palmas has developed, through years, a microcredit methodology focused on generating income, wealth and social development in a territorial basis, contrasting in many ways with methodologies which privilege individual results [22]; [12]. The scale of the project, however, was bounded by Banco Palmas' limited access to funds and technology,

In this sense, an important development came in 2005, when Banco do Brasil, the largest bank in the country, through its subsidiary Banco Popular do Brasil (BPB), proposed a partnership that brought the correspondent banking model into the Banco Palmas project and empowered the growth of their microcredit operations. Before the partnership with BPB, Banco Palmas microcredit operational model was heavily founded in two pillars: Banco Palmas' in-house credit analysis methodology and proprietary "social currency" (see Figure 4).

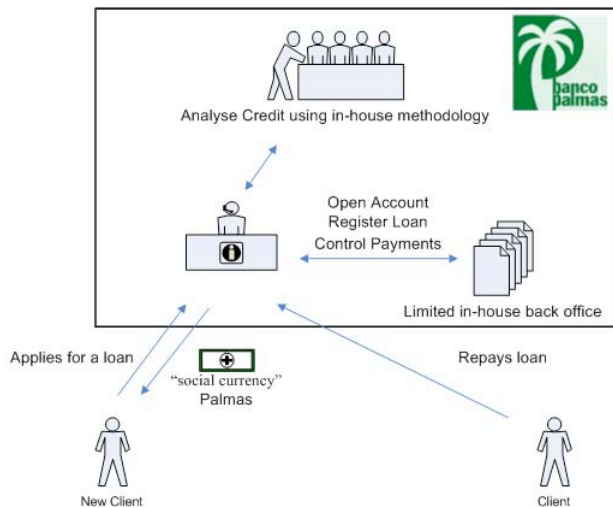


Figure 4 - Banco Palmas' traditional microcredit

When applying for a loan at the project, the new client's admissibility was analyzed through the use of the Banco Palmas' in-house credit analysis methodology. After approval the client received his loan in Palmas. All the operations involved were done manually or with very rudimentary technology tools, including all the back-office administration and payment controls. With the partnership and the corresponding banking, Banco Palmas was able to introduce a new loan process unbounded by the limited in-house back office tools. Using this new process Banco Palmas was now able to open and control accounts and control payments in a much larger scale, using Banco do Brasil infrastructure via POS (see Figure 5).

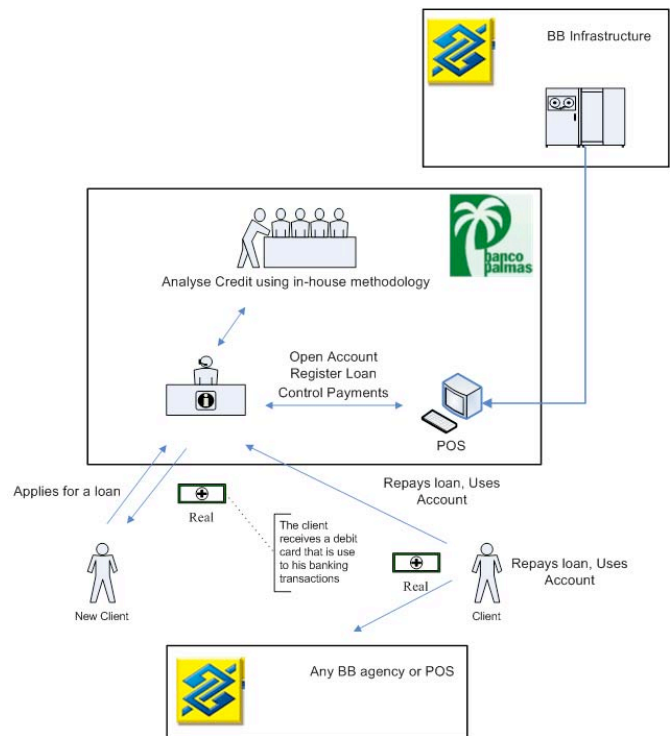


Figure 5 - Banco Palmas' microcredit via correspondent banking

The new partnership brought to Banco Palmas not only enhanced new ICT technology and an improved microcredit operational model, BPB also funded a 300,000 Reais line of credit, tenfold the previous capital endowment of 30,000 Reais.

Additionally, the adoption of the correspondent banking model leveraged the Banco Palmas operations since the bank was now able to respond to the already existing demand and offer new financial products, as life insurance, for instance. Although still minor, this new source of revenue, derived from its new role as a correspondent banking, has an undisputable potential.

## IX. CONCLUSION

Worldwide, the microfinance sector continues to undergo significant transformation from an initial non-profit and donation based model to a broader model aiming on the establishment of local financial institutions, more open partnerships and further sustainable venues for growth; all this without neglecting the principle that microfinance is and must remain a powerful tool to fight poverty.

Working with the Banco Palmas case, we could eyewitness the potential of partnerships between traditional banking institutions and MFIs. The partnership between BPB and Banco Palmas allowed both institutions to overcome a significant part of the "meso level" challenge, by exploring the specific strengths of each partner in the microcredit business. On one hand, BPB has extensive access to funds, as well as technological tools and back-office systems to support larger scale credit operations, but lacks in knowledge of microcredit lending methodologies and has no experience in providing credit to the lower-income clientele. On the other, Banco Palmas are in the opposite situation: they may have proven expertise in microcredit methodologies, but had limited access to funds and technology. The adopted architecture turned possible through the partnership allowed both institutions to overcome their respective limitations and provided an alternative to expand microcredit by filling the "meso level" requirements in a suitable way.

This kind of partnership represents an excellent opportunity to traditional banking institutions to enter the microfinance market. Partnership like this can bring to the banks the knowledge and insight about the microfinance market (specific credit analysis methodologies, public knowledge and penetration, and so forth) and minimize the banks exposure to this kind of market, one of main resistance factors to a broader participation.

However, further research on the issue is still necessary. Nevertheless the clear outcomes from Banco Palmas' partnership with BPB, i.e. the availability of a powerful ICT infrastructure to expand microfinance services offer and the tenfold increase over Banco Palmas' previous capital endowment, it is necessary to know more in detail all the direct consequences of this new operational model into the community. We still need to achieve a better understanding about Banco Palmas case above all the corroboration of possible generalizations and future replication of the partnership model adopted. The social implications of this new operational model, although promising, are still unknown and further studies must take place in order to achieve a better understanding, particularly the offer of more financial services other than credit and insurance, and a more extensive use of the ICT possibilities, like systems integration between Banco Palmas and BPB.

Different kinds of partnerships must be explored, involving different entities; different operational models and range of microfinance services offered. As remarked by [9], the financial infrastructure and network of other service providers necessary to the operation of microfinance

institutions is possibly the least understood component of the financial system within the microfinance community.

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