

Activity-based costing for MFIs

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Over the last 15 years, the microfinance markets have become much more highly developed. While most of the markets for microfinance services could still be described as classic supply-driven markets only a few years ago, today they are being shaped to an increasing degree by the demand side, i.e. by the needs of those who use microfinance services. This, together with the increasing levels of competition in the microfinance market, is reflected in the growing sophistication of the institutions operating in those markets, which are now serving their target groups on an increasingly large scale, offering a wider array of products and in a more efficient manner.

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Alternative Financing Schemes for Small Suppliers

Fermín Vivanco and Claudia Suaznábar

Small firms fund themselves through a wide variety of sources, many non-traditional. According to the World Business Environment Survey only 29 percent of small Latin American firms have access to bank credit, while other sources show that 55 percent of small and medium enterprises (SME) use their own suppliers and clients as a financial source in their early development stages¹. Thus, to better understand the financing of SMEs, one must take a closer look at the

commercial credit offered by other actors along the productive chain.

In the most widespread type of commercial credit suppliers provide credit to their buyers, allowing them to pay in installments. An annual survey of the Banco de México indicates that in the first half of 2004, 76 percent of Mexican firms gave credit to their customers, and that this figure is higher

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The four IMI institutions in Latin America – Caja Los Andes in Bolivia, Calpiá in El Salvador, Confia in Nicaragua, and SFE in Ecuador, which were all recently renamed and now operate under the name “ProCredit” – rank among the key players in their respective markets. They all face the challenges that are characteristic of highly developed microfinance markets and offer a broad range of products to their clients¹. The resulting complexity of their business operations has in turn created new requirements in terms of the information that must be generated within the institutions. While in the past it was sufficient to have financial ratios which were relatively up-to-date and to focus primarily on obtaining an accurate picture of the level of risk in the loan portfolio, today the intermediaries must have much more sophisticated analytical tools at their disposal.

Detailed costing data which enables the institutions to gauge and analyse with a high degree of precision the efficiency not only of their branch networks but also of their “production process”, and in particular the level of efficiency they achieve in producing and delivering each one of their individual services, is essential in these markets. As a result, a costing system is one of the tools which any MFI that has achieved a certain degree of maturity must have.

- 2 For this reason, the IDB’s Multilateral Investment Fund (MIF) provided co-financing for the implementation of modern costing systems for the network of IMI institutions in Latin America in the framework of its innovation project. The present article gives an overview of the process involved in designing and implementing such systems and summarises the principal lessons that have been learned from the practical experience which the institutions have acquired in their operation.

What is an ABC costing system?

In broad terms, one can distinguish between two different basic approaches to costing:

Traditional costing, in which, with the help of allocation formulas, a share of both the direct and the indirect costs is apportioned to an institution’s individual products or branches, or, more broadly speaking, to the cost centres.

Activity-based costing (ABC), which inserts an additional, intermediate step in the traditional costing process by first assigning the costs (direct and indirect) to various activities, which are then allocated to the individual products and branches.

There are two ways to determine how much time is spent by the staff in carrying out each of the individual activities required to implement an institution’s operations. One approach is to define a standard amount of time that is assumed to be required for the completion of a given activity based on interviews with qualified personnel who regularly perform this activity. Another way is to conduct a broad-based staff time measurement study to determine the actual amounts of time required for the activities which are performed during a given period.²

How is an ABC system implemented?

The process of implementing an ABC system can be divided into four phases. During the first phase, the MFI identifies the specific objectives which are to be achieved, based on its current situation, and makes a decision to adopt a specific costing system (basically, the choice is between either the traditional approach or ABC). The crucial advantage of an ABC-based system for the IMI institutions was that with this type of system it is possible not only to analyse costs much more precisely, but also to manage them much more effectively, as the system not only reveals the cost structure, e.g. for a specific product; in addition, it also breaks the costs down by activity, which allows the management to understand why a certain activity is costly and to act accordingly.

Once this decision has been made, the second phase can begin, i.e. the specific activity structure for the institution, which will form the basis for the costing system, can be defined. As

regards this point as well, the importance of focusing on the objectives that have been defined for the system cannot be emphasised enough. The decision as to the specific processes or activities which are to be covered by the system can only be made on the basis of an assessment of the objectives which are to be achieved by utilising the ABC system. Additionally, a crucial factor for the success of the project is to find the right degree of differentiation when delineating the range of products and activities. The system needs to ensure that a sufficient level of detail is achieved while at the same time the degree of “resolution” is not so great that the system will be overloaded and be susceptible to distortions which would undermine confidence in the accuracy of the data generated. Once these basic issues have been addressed, a software package can be selected which will make it possible to actually begin implementing the structure that has been defined.

The next step in the process (phase three) is to parameterise the software

¹ In addition to providing credit and deposit products to micro enterprises, SMEs, and, to a certain extent, to salary earners, they also offer other banking services such as remittances and transaction banking.

² The second approach has the specific advantage that it enables the costing system to more accurately take into account the large variations that exist between the individual regions of a given country, but it is also more costly in terms of time and budget.

package that has been selected. The four IMI institutions made a decision to collect specific data during a pre-defined period of time on the individual activities performed by all staff members (see above box), and an additional module (intranet-based) was developed to enable the staff members to quickly compile the necessary data on the various activities they carried out each day. One key aspect of the process was to establish a procedure for “translating” the data that was already available in the existing costing system so as to make it compatible with the software that had been acquired.

Generally speaking, it is fair to say that the degree to which data acquisition and processing are automated is crucial for the success of such a project. The less information that needs to be collected and/or allocated to the respective categories manually, the more likely it is that the costing module will in fact be used in the future.

The next phase, i.e. phase four of the process, is the actual implementation of the costing system at the financial institution. Once the software has been parameterised and a special tool for compiling and recording the necessary data on the individual activities has been developed, it might seem at first glance that the bulk of the work has already been completed. However, the actual implementation of the system at the institution determines the success or failure of a project of this type. At this stage it is of decisive importance for the success of the project that it receive a sufficient degree of support from the management of the institution in question. In order for a costing project of this kind to really be able to function properly in practice, it is important for all staff members at all levels to understand precisely what objectives this tool is intended to accomplish and what benefits the institution will derive from implementing it. And therefore, it is particularly important that when the new costing system is introduced, the members of the executive management of an institution are person-

ally very much involved in the process and take the time to explain to the staff exactly what the new system is designed to accomplish.

If the implementation activities are geared to establishing an ABC system and to automating most of the tasks involved in using it, it will generally take between four to six months to complete the entire process – including the collection of the necessary data on employees’ tasks and activities, the entry of the data into the software program and the necessary verification of data consistency.

What results can an ABC system yield?

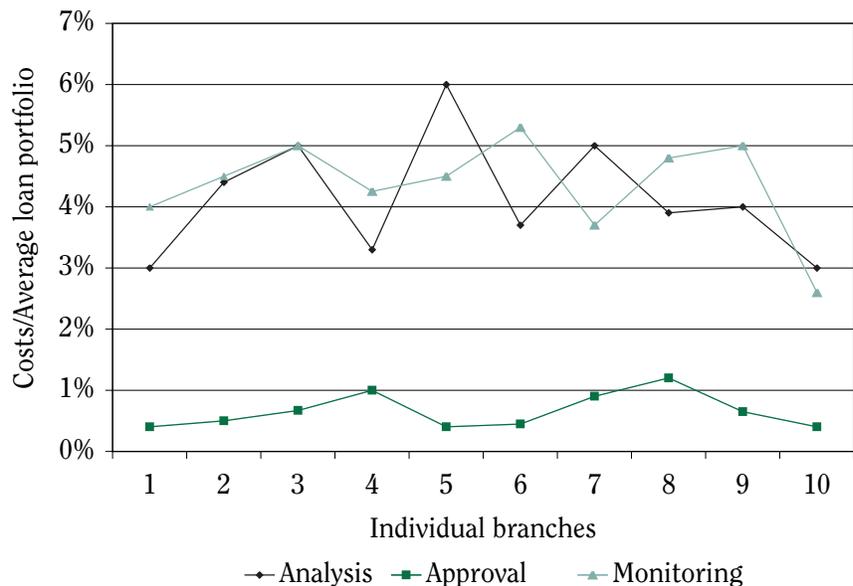
If the objectives have been clearly delineated, and the procedures have been properly designed, as described above, an extremely wide range of issues can be highlighted by the data generated by an ABC system. For example, in the case of the project that was carried out at the four IMI institutions in Latin America, it emerged that the efficiency levels achieved for individual products at the different branches varied widely. This was true even with regard to branches which were comparable in

terms of the individual products in question, i.e. branches which were generating similar business volumes with these products.

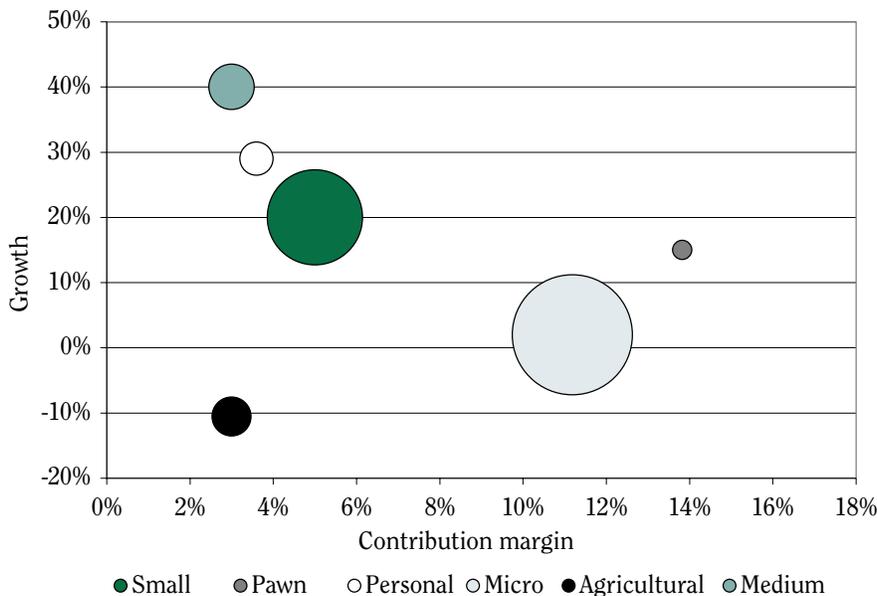
For example, branch No.10 of a fictitious MFI, has the lowest level of direct costs – or, more precisely, the lowest level of “direct ABC costs”, which are the direct costs plus the indirect costs which have been allocated to the product based on a review of all of the activities involved in the process of producing and delivering it. Why does this branch achieve a significantly lower level of direct ABC costs (higher efficiency) than, say, branches No. 3 and 5? Can the differences in efficiency be traced back to differences in the efficiency with which the individual processes are carried out? And if so, what are the processes for which the differences in efficiency between individual branches are most significant?

If the “direct ABC costs” incurred in the provision of micro loans are calculated for all branches and broken down to show the costs generated by the specific activities that are carried out, it is relatively easy to identify the causes of inefficiencies. For example, as we can see on Graph 1, it costs more to carry out both credit analysis and monitoring at branch No. 5 than it

Graph 1: Direct costs per branch per activity in the provision of micro loans



Graph 2: Contribution margin and growth of product mix



does at branch No.10, but the higher costs of credit analysis account for the largest share of the total difference in costs between the two branches.

The data generated by the ABC system enabled the institutions to determine, among other things, that although their staff were all using the same specialized micro lending technology, the actual procedures employed by individual staff members varied quite significantly, and this in turn led to widely differing efficiency levels. Another benefit of ABC was that the data produced by the system helped the institutions not only to determine how much each of the individual products was contributing to profits, but also to implement a system that enabled the head office to guide the operations of the branches with greater precision.

As regards the consideration and discussion of strategic options, the data provided by an ABC system is of inestimable value. If, for example, the data is presented in the form of a growth/contribution margin matrix, with the diameter of the circles indicating the volume of business generated with the individual loan products, as in Graph 2 shown above, the strategic position of an MFI is apparent at a glance.

The ABC system also allows the four institutions to calculate the contribution margin for each product. Graph 2 depicts the situation at a fictitious MFI where the institution does in fact generate a high contribution margin with its most important product in volume terms, namely micro loans. Unfortunately, though, in mature markets such as the market for micro loans, growth rates often are rather low – which is what prompted the institution to introduce new products, such as SME loans, housing loans and consumer loans. However, it has not yet been demonstrated that these new products can generate a sufficient contribution margin. The first advantage of an ABC system in this situation is that the data it generates enables management to calculate precise margins for different products and to identify the “drivers” for higher or lower direct costs. Secondly, based on this data, institutions can analyse much more thoroughly the impact of different strategic options. An institution faced with a situation such as that shown in the above strategy matrix will understand how important it is to commit sufficient resources to ensure growth in its core market, and it will also see the necessity of ensuring future growth via the introduction of new products which will allow it to serve new market segments in a cost-effective manner.

Factors to ensure success of an ABC system

As has been shown in the preceding sections, an ABC-based system is an important tool for MFIs operating in highly developed markets, as it can generate detailed information which makes it possible to manage costs effectively. But any MFI that wishes to introduce an ABC system must first of all establish what its current needs and objectives are. In many cases, the implementation of a relatively simple branch and product costing exercise will, in itself, constitute an important step forward. However, if MFIs have already evolved into more complex organisations which offer many products and operate in rather competitive markets, a more detailed analysis may be required. In such cases, a more sophisticated ABC system may be needed. Based on the experience gained within the IMI network in Latin America, it can be concluded that the following are crucial factors in terms of ensuring the long-term success of such systems:

- The costing system should be automated to the greatest possible extent. This is important in order to actually make cost analysis a continuous process. If the required data has to be collected and compiled manually, over the long term this will lead to resistance to the whole idea of activity-based costing on the part of the staff.
- Developing an appropriate organisational structure, i.e. one in which costing is given a suitable position and status within the institution’s overall organisational set-up. This will ensure the full exploitation of the potential of a costing system. In the final analysis, it would be necessary to create a special costing unit, e.g. within the controlling department.
- The staff responsible for carrying out the costing activities should be fully qualified to perform their assigned tasks. In addition to having the requisite expertise with

respect to the operation of costing systems, the responsible staff members must be thoroughly familiar with the institution. They must understand the processes involved in the operations of an MFI and the underlying rationale. If they do not have these qualifica-

tions, it will not be possible for them to make meaningful use of the data produced by the system when analysing the scope for increased efficiency.

- Last but not least, the ABC system will only produce the intended

results if there is active support by top management to ensure that the insights gained from the data generated by the system do in fact facilitate a change process.

Alternative Financing...

(continued from page 1)

among smaller supplier firms.

Client financing to suppliers, on the other hand, often takes place through cash or in-kind advances from buyers to suppliers or through financial instruments such as factoring. However, the weak regulatory environment and the lack of credit records makes it difficult to expand the use of these commercial credit instruments in Latin America². As a result, SMEs use alternative financing schemes based on their forward linkages with processors, wholesalers and final clients. This article outlines three of these alternative mechanisms and examines the strengths and obstacles in each case: three craft exporters that sell their products in the United States; Hortifruti, a fruit and vegetable wholesaler in Costa Rica; and the experience of the Manos Campesinas coffee producers association in Guatemala.

Exporter Financing of Crafts Industries

This section is based on the experience of three craft exporters in Honduras, Nicaragua, and Guatemala, which are linked to over 1,000 artisans. These companies export hand-made furniture and decorative items for annual revenues ranging from

US\$500,000 to US\$3 million, and they are part of value chains that reach importers in the United States and Europe.

Exporters purchase practically all the output of these artisans and they maintain a close and trusting relationship with them. They also provide financing for their production and technical assistance. On average, the exporters give the producers a 50 percent advance, paid in cash and in kind, though in many cases the percentage of financing varies and may depend on the economic needs of the producers.

Given their advantages in terms of getting better prices for materials and transportation, –which may be significant for materials such as iron— the exporters generally supply inputs to the producers, and then discount their value when making the final payment. In other cases, when supplies such as paints and varnishes for ceramics are not available in the local market, the exporter is the only one who can import them. Finally, cash advances are justified on the basis of supporting the producer in other aspects of the production process, such as hiring labor.

The success of this model is based on

the alignment of incentives offered by the different players. On the one hand, exporters make sure that appropriate materials are used and technical specifications are met, while also complying with delivery times. The suppliers' fidelity is guaranteed by the benefits they derive from constant purchase orders and access to financing for their working capital. Nonetheless, if export sales grow, as we will discuss further on in this article, it remains to be seen if the current scheme can be up-scaled to reach numerous suppliers in a sustainable way.

The Case of Hortifruti

In the 1990s, the largest supermarket chain in Costa Rica, Corporación de Supermercados Unidos (CSU)³, changed its market strategy, increasing the supply of fresh fruits and vegetables in its product portfolio. Aware of the importance of quality, food safety, and timely supply of fresh produce for its strategy to succeed, CSU agreed to a mechanism for buying fresh fruit and vegetables through a wholesale intermediary who assured compliance with the minimum standards it was seeking to meet.

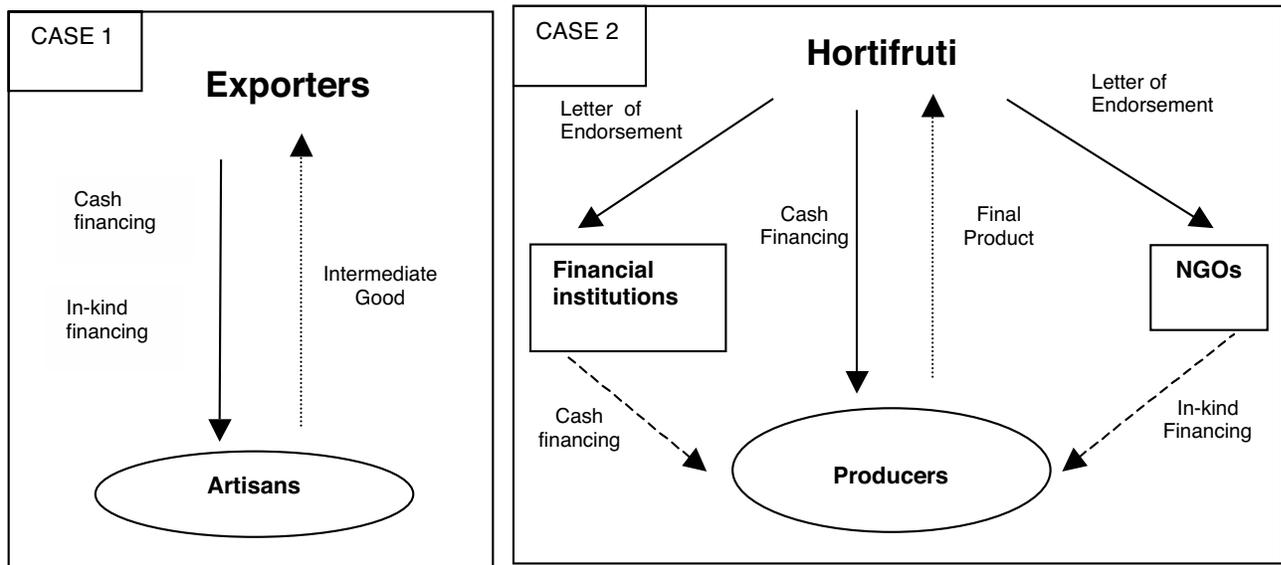
Hortifruti acts as wholesaler selling

¹ *Developing Entrepreneurship. Latin America and the international experience*, H. Kantis. P. Angelelli and V. Moeri-Koenig. IDB (2004).

² Through factoring the supplier is able to obtain advances from a factor on his or her accounts receivable. In *"The role of reverse factoring in supplier financing of small and medium-sized enterprises"* (The World Bank, 2004), Leonora Klapper cites the problems faced in developing factoring in emerging markets.

³ CSU has a 62 percent share of the domestic market. Hortifruti is the wholesaler owned by the same holding company. "The Rapid Rise of Supermarkets in

Figures 1 and 2: Financing Models for Craft Exports and Hortifruti



products from small farmers to CSU. In addition, it coordinates and supports low-income small producers, most of whom work on subsistence crops, channeling technical assistance, offering agricultural extension services, and linking groups of small producers to institutions that provide financing. At present, this pool groups 1,200 producers in Costa Rica, 300 in Honduras, and 300 in Nicaragua. Hortifruti purchases 750 containers of perishable products annually from its suppliers and 90 percent of the supply comes from local sources, compared to only 35 percent in 1999⁴.

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As can be seen in Figure 2, three schemes are used in financing Hortifruti's suppliers, however, whenever possible, financing is delegated to specialized institutions. In Costa Rica, Hortifruti links its small suppliers with the financial institutions it works with, mostly state rural development agencies. In Nicaragua and Honduras, where credit from financial institutions to small producers is scarce, the scheme varies and Hortifruti works with NGOs that offer in-kind credit to producers' associations in the form of seeds, fertilizers, or packaging. In exceptional cases, and only when no financial intermediaries are interested, Hortifruti also gives cash advances to its suppliers. This tends to happen in especially depressed areas or with

products atypical to the region.

The scheme works in the following way: Hortifruti performs an initial screening and selection of the producers. Then, only those who meet certain basic conditions for working with the wholesaler seek loans under the scheme. Hortifruti, without assuming credit risk, issues a letter of endorsement stating that it will purchase a quantity of production from the producer, at the market price. The loan conditions (guarantee, interest, and tenors) are then set between the producer and the financial institution or NGO, and the responsibility for repayment is borne by the producers.

This experience shows that financial institutions are willing to finance small suppliers under certain circumstances where market risk is somehow mitigated and there is additional information available on the suppliers.

The case of Manos Campesinas

In 1997, Manos Campesinas, an association of five organizations that brings together 1,100 small coffee producers from southwestern Guatemala, entered the International Fair Trade Registry. Yet, there was no financing in the region for the small

coffee producers supplying coffee to Manos Campesinas for export. This meant that during the harvest season the producers would continue selling to the first intermediary willing to pay cash, even when prices paid were far below the international market. Manos Campesinas was exposing itself to the risk of its suppliers not delivering their product in time and according to the quality and quantity previously agreed upon.

To solve these problems, in 2000 Manos Campesinas began to work with EcoLogic Finance, a nonprofit organization based in Boston, United States, specialized in financing the export of environmentally-friendly products. Today, with resources provided by EcoLogic Finance, Manos Campesinas finances advances for up to 37 percent of the total value of its coffee exports. In 2004 it will export some 380 tons of coffee to fair-trade buyers in the United States and Europe at a premium of more than 73 percent. In the coming years, Manos Campesinas will double its financing to suppliers through funds from the IDB's Social Entrepreneurship Program. This additional resources will help finance 500 new producers.

The financing scheme is closely linked to the chain: Once EcoLogic makes sure that there is an existing purchase

⁴ Presentation at the Seventh Inter-American Forum on Microenterprise, Cartagena, Colombia. September 2004.

agreement with international clients, it gives pre-harvest and post-harvest financing to suppliers at the moment when transactions are made with Manos Campesinas. Pre-harvest financing enables producers to buy inputs and to perform maintenance work on the property, while post-harvest financing consists of a payment from Manos Campesinas to producers amounting to the international market price, in order to prevent side-selling. After the product is exported, Manos Campesinas transfers to producers any extra profit that might have been realized thanks to the over-price obtained in specialized markets.

It is a successful scheme in which everybody wins: EcoLogic draws on Manos Campesinas's knowledge of the suppliers, as a basis for lending to them at low risk, while Manos Campesinas assures the quality of the output with pre-harvest loans and timely delivery, advancing the market price upon delivery. Small producers avoid pre-harvest financing at high rates from intermediaries, are paid at market price in cash upon delivery, and later receive the premium for having sold to a fair-trade and quality market. It is expected that the success of this scheme will attract other financiers, facilitating the growth of Manos Campesinas in keeping with the demands of its clients.

Conclusions

It is not ideal for buyer firms to finance their small suppliers, especially when the number of buyers is limited and this further increases the power of the companies vis-à-vis the small suppliers. Nonetheless, on certain occasions it not only fills a void in the financial system, but also presents advantages for both parties.

First, the small supplier capitalizes on his track record by obtaining financing from the buyer company, which he could not do with a financial institution not familiar with the transactions between the two parties. Second, buyer firms may be interest-

Figure 3: The Manos Campesinas – EcoLogic Finance Model

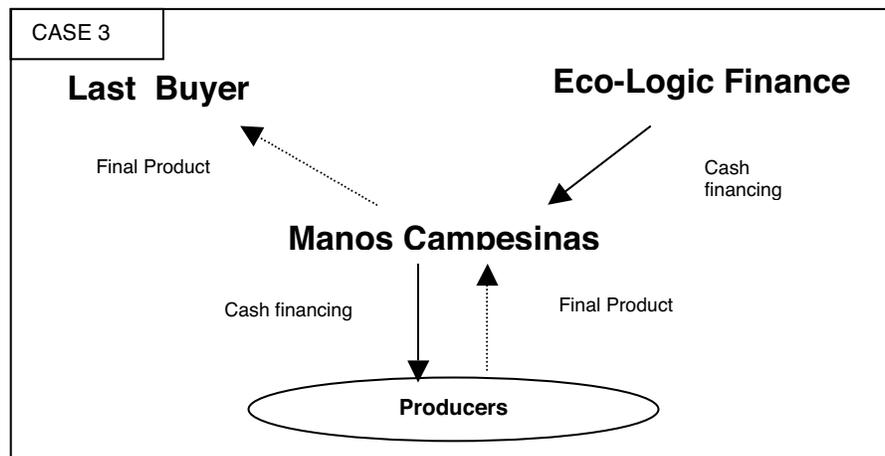


Table 1. Other Schemes for Financing Suppliers

In the agro-food chains, the futures contract for purchases of the harvest is a typical scheme whereby the client finances the supplier.⁵ Nonetheless, there are more sophisticated instruments such as warehouse certificates of raw materials (typically grains) or futures transactions through agricultural bourses, such as the Bolsa Nacional Agropecuaria of Colombia (www.bnasa.com.co). One interesting example of warehouse certificates in grain for small producers was financed by the Inter-American Investment Corporation, of the IDB Group, through Almacenedora Mercader in Mexico.

The fair trade channels are particular cases in which it is common for small producers to obtain financing from intermediaries or financial funds that accompany big buyers like Starbucks or Ten Thousand Villages. These funds, such as Shared Interest in the United Kingdom (www.shared-interest.com), provide international factoring services and channel advances to producers who have purchase agreements with large international clients. These models are also being extended to other spheres of international trade in which small producers take part (such as EcoLogic Finance in Guatemala, www.ecologic.org).

NAFIN's Productive Chains program in Mexico (www.nafin.com) includes financing for SME suppliers of industrial productive chains. This is an electronic platform-based program which promotes the use of factoring and reverse factoring services for small producers that have contracts with leading firms.

ed in giving financing as a way to secure performance on their orders in terms of timeliness, quality, quantity, and other requirements that condition the approval of the financing. Accordingly, financing in the chain is of interest to buyer companies when the benefit of ensuring compliance

with certain suppliers offsets the costs and risks of financing. Third, for the buyer companies, the cost of following up on the financing is low, for this can be done simultaneously for transactions involving purchase, receipt, and verification of conditions of delivery, as in the case of the Manos Campesinas-EcoLogic financ-

⁵ For more information on rural finance see www.ruralfinance.org.

ing or the artisans' exports.

Despite these advantages, financing of suppliers by the buyer company hides important costs and risks. First, the model is based on close contact and a high level of trust between the supplier and the client, and thus may not be easy to replicate. In addition, if the company uses its own resources, it faces opportunity costs on earmarking its resources to an activity for which it is not specialized.

Furthermore, if the company uses external financing, why not take the next step and seek a partnership with an institution which could directly finance the suppliers?

In many cases this depends on the existing capacity of the financing entities to reach the suppliers directly. When they are international entities, the high transaction costs require of an intermediary for channeling the resources (Manos

Campeñas). In the case of local financial institutions such as the rural banks in Costa Rica or Banrural in Guatemala, while they have the capacity to directly reach small suppliers at a reasonable cost, they may also require some reinforcement to ensure compliance with the contracts⁶ in the form of guarantees and/or technical assistance.

In the long run, the financing of suppliers by buyers should evolve towards partnerships between the buyers and financiers who are linked to the chain, and later towards a model in which the financiers interact directly with the suppliers. At least some international experiences suggest that this may be the way forward.⁷ Unfortunately, this is especially difficult in countries where the financial sector stays away from vulnerable populations and sectors such as coffee or crafts with which they had bad experiences in the past.

Donor support is especially needed to help further arrangements that would promote the entry of local financial institutions, and the use of instruments such as those described in this article to remedy the information asymmetries and the market risks that drive financiers away from productive chains.

In Future Issues...

Micro insurance in Latin America

How do MFIs best fund themselves?

⁶ There are other arrangements in which the intermediaries channel the disbursement or reimbursement of loans given by financial institutions, thereby lowering the operating costs involved. More information can be found in "Innovative Products and Adaptations for Rural Finance," by J. Buchenau.

⁷ In the Comunidad Valenciana (Spain), the history of credit sections of rural cooperatives makes it clear that financing in the chain draws the financial sector into a business with which it is not familiar. To the extent the producers could obtain direct financing through the cajas de ahorro, banks specialized in SMEs, and other entities, the number of rural cooperatives with credit sections diminished, along with the volume of their portfolios. Sanchis Palacio, J.R. and Soriano Hernández, J.F. "Análisis empresarial y situación actual de las secciones de crédito de las cooperativas agrarias de la Comunidad Valenciana". Revista Valencian D'Estudis Autònoms. N. 26 (1999).



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