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Stephen W. Gibson

Kathleen Gordon

Professor Don Norton and his students
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From the Editor:

In vol. 2, no. 1 (Spring 2000), the editorial staff of the *Journal of Microfinance* advertised an annotated microfinance bibliography to be published in the vol. 3, no. 1 (Spring 2001) issue of the Journal. We regretfully announce that we were not able to complete the bibliography prior to publication of this issue. We continue to work on the bibliography, however, and we hope to publish it either in its entirety in an upcoming issue or serially over several upcoming issues. We hope that the end result will justify your patience.

Microfinance Myopia

Lessons from the Mainstream

by Kim Wilson

Abstract: This essay attempts to remove the shades that blind the microfinance sector to the value of its customers and what its customers truly value. It proposes that the social agenda and financial health of microfinance institutions would be far more sound if we understood who our customers are, why they leave, what they really want, and the real business we are all in.

Introduction

Harvard Business Review published an article in 1960 that would forever change the way executives think about their businesses. The article, "Marketing Myopia," is a classic (Leavitt, 1960). Business school professors around the world still use it to pose a single question: "What business are you in?" This simple query is as applicable today in the world of dot.coms and virtual companies as it was when first published. It also applies to microfinance.

"Marketing Myopia" looked closely at a variety of businesses and industries that faded or nearly faded because they were oriented only to product and process. These were companies that failed to see how their customers actually used their products and services. For example, railway company executives claimed that they were in the railroad business, insisting

that their competitors were other railroad companies. They failed to see that they were in the transportation business. Soon enough, with the development of other transportation methods, customers found better value elsewhere: passengers defected to buses, freight customers to trucking companies. The railway industry was dying.

Industries guilty of marketing myopia have defined their businesses too narrowly, never seeing their product or service through the eyes of customers. Hollywood claimed it was in the movie business. When studios began to lose ground to television, executives were forced to see that they were in the entertainment business. These insights were both painful and slow to come.

Marketing myopia takes place for one reason: companies fail to see the solution that their products offer to users. Customers do not buy products; they buy solutions to problems. If a competitor offers a better solution, even with a completely different product, customers will defect to the better solution. The key, then, to avoiding marketing myopia is to see products or services through the eyes of customers—to see beyond the product to the solution that customers are seeking.

How does a business know if it is myopic? One sure way to tell, the article said, is to scan industry literature. If the information is primarily technical, the industry may be suffering from marketing myopia. For example, a 1960 publication of the petroleum industry (cited by Leavitt, 1960) might have predicted its near collapse. Telltale articles focused solely on production and the use of electronics in various processes. Not one article was devoted to marketing, sales, or customers. (The petroleum industry eventually realized that it was in the energy business, not the oil business.)

Is microfinance a victim of marketing myopia? One can easily check by reviewing current publications in microfinance.

Kim Wilson is Senior Advisor for Microfinance at Catholic Relief Services. Prior to working in the microfinance sector, Kim was a partner in a venture capital firm based in Boston.

Most focus on the "back room" aspects of microfinance: finance, accounting, forecasting, collections, and MIS. Some focus on social impact and training. None focus on marketing strategies or on face-to-face selling.

Just how damaging is our myopia? How does our focus on the back room instead of the front lines jeopardize sustainability and place our social agenda in peril? We need to declare war on attrition and recognize both the value of our customers and what our customers value. In so doing we will offer customers the financial services they desire and deserve; in other words, we will offer the solutions that solve our customers' problems.

The Main Event

Let us clear any vestiges of marketing myopia with a fresh look at our customers. We might begin with something we already know: our impoverished customers often use cash, our core product, to meet basic demands for food, shelter, and health, even though we often insist they use it only for business investment. They also use cash to meet the demands of

- Predictable, recurring events: managing the peaks and dips of income during the agricultural seasons; and replacing the income spent on school fees, marriage, or burying a family member.
- Crises: coping with the sudden death of a major income provider in the family, a flood, loss of home, famine, disease, or medical emergency.
- Asset creation: seizing opportunities to buy land, build shelter, purchase gold, or buy important equipment, such as a granary.
- Business opportunities: starting or expanding a microenterprise.

In conversations with poor people, Stuart Rutherford learned some very interesting things (2000):

- The poor need to convert small amounts of money into larger, more useful lump sums. This conversion occurs through savings and loans.

- The poor would like to save and borrow to help them solve a household problem or to support an income-generating activity.

Looking at these findings, we get a glimpse into how a customer perceives the problem that microfinance solves. Microfinance performs the service of time-shifting: borrowing money today to solve a problem today and paying the money back in the future, or saving money today for an event in the future. But the key is this: money is a solution. It is not the main event.

When attending a village bank or Grameen bank meeting, one might spend hours observing routines, rituals, and transactions. The credit officer is well versed in each of the details of the meeting. For the credit officer, the main event of the meeting is the cash transaction. But the main event for the customer is how the money he borrows solves his problem. He uses the money to buy oranges for his fruit stand, pay school fees, pay for a proper burial, or buy a small plot of land. His main events are the problems the money solves.

The Bottom Line

Understanding what the customer sees as the main event will shed light on just what business we are in; the main event occurs when money becomes the solution for a client's problem.

What Business Are We In?

When asking practitioners "What business are we in?" we may hear "the financial services," "the financial intermediation business," "the business of linking capital markets to the poor," "the lending business," or even the broad "improving the lives of the poor business." The truth is, we are in a sector broader than providing financial services but narrower than improving the lives of the poor.

Let us look at our business from the point of view of what our customers really value. They need loans; they need savings. But these products are a solution to a set of problems or an

avenue to opportunity. How well our customers manage their money has great bearing on how well they will manage those problems and opportunities.

We might locate ourselves in the family financial resources business. Our customers value the ways in which cash, appropriately time-shifted, can help manage household problems and household opportunities. Note that this is a serious departure from seeing our business as solely supporting microenterprise activities.

As a sector, microfinance has been competent at the product part of business. We offer loans and savings—even if through highly local methods—and more recently we have investigated insurance products. What we must now consider is the service part of our business. How can we effectively offer services that help customers plan which products work best to optimize cash flow?

If we conclude that our service is not loans (loans are a product) or savings, but family financial resources, we can benefit from what Stuart Rutherford observes. He concludes that only some of the financial resources used by the poor are dedicated to business opportunities. Other resources are applied to household needs, ranging from emergency needs to long-term asset acquisition, such as better housing (2000).

With this new self-definition, we might change our product slightly. Our marketing and outreach strategy might change. Our services might change and become less generic. Even our customers might change—from individual women to families. If microfinance tracks with business, we would see a reduction in attrition and a concomitant increase in both sales and profits, results rooted in a better understanding of the business that we are really in.

The Bottom Line

We must take the time to understand our value to customers and understand the business we are in—the business of family financial resources. The time we spend on assessing what our

customers value is time well spent and will effectively inform product, process, and marketing decisions.

Getting on Track

Recall the railway executives who thought they were in the railway business and failed to see that they were in the transportation business? They were off the track. If we assume we are in the family financial resources business and not in the savings and loan business, or the microenterprise support business, we might see that our current modus operandi is also off track.

The railway companies alienated customers by operating on strict schedules that suited rail workers and station managers, but not the customers, the passengers. The schedules offered set departure times and times to buy tickets, all established for the convenience of the company, not for the convenience of the customer. Bus companies started more closely meeting passenger needs. Customers switched. Train travel started to die out. While passengers fled to bus lines, commercial freight customers fled to trucking companies. The railroads lost again.

In microfinance, most of our programs offer loans according to our schedule. Customer payments must be made according to our schedule. Even internal accounts (village bank savings) are not always accessible to a customer's schedule for withdrawing savings.

It is possible that most of our former customers are not leaving for competitors; rather they are just leaving. This points to an even greater failure by microfinance to satisfy customer needs. At least the railway business could point to the bus companies luring customers. But to whom can we point? Are our products so rigid that customers leave regardless of whether there is competition or not?

The Bottom Line

If we continue to deliver our products on our schedule, and not on the schedule of our customers, we will miss the train.

What If Meeting Needs Costs More?

A 1990 study, published in the *Harvard Business Review*, showed that when a well-run service business reduces its attrition rate by just 5%, it increases profits 25% to 85%. One credit card company dropped its attrition rate by 5% and then saw an increase in profits of 125% (p. 107). The study, written by Frederick F. Reichheld and W. Earl Sasser, Jr., noted that in the credit card business, a "10% reduction in unit costs is financially equivalent to a 2% decrease in defection rate"(p. 108). Think about that: reducing attrition by 2% has the same cost impact on a credit company as reducing unit costs by 10%.

Meeting customer needs effectively and completely may cost more money in the short term. Products must be tested, systems put into place and evaluated, and so on. What happens to sustainability? If we do not carefully manage the reengineering of a product or service, our program can collapse. One good way to guard against disaster is to monitor costs. But we must keep in mind the powerful impact of boosting revenues. Increasing revenues does not necessarily mean increasing revenue per customer—though this is a powerful thing—but increasing overall revenues, and subsequently profits, through retaining all customers.

Again, if we want to sustain our success rate in retaining our customer base, we must return to our vision of our business. If we see our business as providing loans or fostering savings, we have defined our business generically. Price starts to matter. If we see our business as providing a solution and strive to improve the solution, then price matters less. Retaining customers relates to price sensitivity, or price elasticity.

Price elastic services are those services where price is important to customers. The prices stretch according to the customers' perceived value of the service. If customers believe the price is too high, they will switch to a competitor's services for a better price or will forgo the service altogether. Price inelastic services are services resistant to switching based on price. For example, our root canal surgeon may be providing a

price inelastic service. We are not likely to switch even if the brand-new dentist across the hall offers services for a little less money. On the other hand, telephone service is often price elastic; if my long distance phone service costs more than that of other carriers, I might indeed switch companies.

We hear program managers groan when government loan programs, hugely subsidized, enter the scene. They offer generic loans. "We can't compete," practitioners say. That is true, if we are in the loan business—we cannot compete. But if we are in the family financial resources business, maybe we can compete. If we are in the business of solving household financial problems, maybe we can compete. In other words, if we can distinguish our service as a better solution, we can compete.

The key to combating price elasticity is to transform generic services and products into unique services or products. Products and services become unique through patents, trademarks, brands and product features. But the best way to make a service unique is to commit to meeting and exceeding customer preferences. The more effectively needs are met, the more loyalty a customer has, and the more chances the service has to become price inelastic.

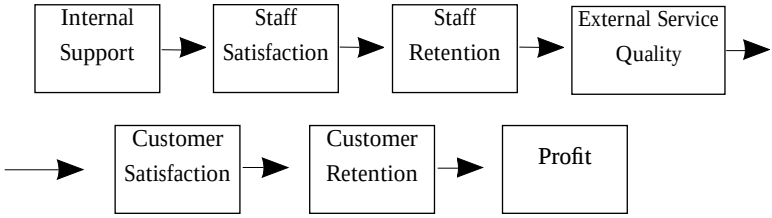
The Bottom Line

To retain customers, microfinance programs must transform from generic services into unique services, valued by customers.

Staff Satisfaction and Customer Retention

The service-profit chain (see fig. 1), a model conceived by Leonard Schlesinger and James Heskett of the Harvard Business School and published in the *Harvard Business Review* in 1991, has a central premise: employee satisfaction drives customer satisfaction and therefore profits ("Debate").

Figure 1. The Service-Profit Chain (modified for this essay)



Note that customer retention is a key to profit. Customer retention results from customer satisfaction, something driven by the perceived value of services. In a service company, staff are the main creators of value. Staff must be satisfied to create value.

Service company employees have ranked what they value most: (1) good training, (2) compensation based in part on performance, and (3) latitude to solve customer problems.

Service companies have found that if their frontline salespeople, technical staff, and managers have the authority to respond to customer problems, two things occur: (1) Staff feel empowered, they are more satisfied, and they stay with the business, which keeps staff turnover costs down. (2) The span of control (the ratio of staff to managers) increases from seven to twenty and sometimes to forty. In industrial companies—as opposed to high-performing service companies—the average span of control is about seven staff to one manager. By giving staff the training they need and allowing them to solve customer problems, service businesses have found that their spans of control can increase three to six fold. This increase far outweighs any extra costs that staff may have incurred to solve customer problems.

Also important to the service-profit chain is staff retention. Merck & Company found that staff turnover costs a company 1.5 times the average annual salary for the turned-over position

(Schlesinger & Heskett, 1991). This figure does not include the cost and effect of staff turnover on customer relationships.

The concept of the service-profit chain may apply to microfinance services. The following checklist may help to determine whether a program might be able to put these concepts into practice.

- ❑ What do our staff value? Empowerment? Autonomy?
- ❑ What is our program's span of control? Can we increase this ratio?
- ❑ Do staff have the latitude to solve customer problems?
- ❑ Do they have the training, ground rules, and guidance they need to respond to customer issues?

The Bottom Line

The service-profit chain demonstrates that staff satisfaction leads to customer satisfaction. To increase profitability, we should pay special attention to staff satisfaction.

What Customers Value

We have proven in microfinance that customers will pay for services that are new to cultures unfamiliar with long-term financing. No one in mainstream business ever believed poor, rural villagers would pay back loans or even be able to save. Yet clever, hardworking microfinance practitioners have demonstrated a true market where no conventional businessperson would have ever suspected one to exist.

Now what does this market really value? By "value" we mean, which benefits will this market pay for? Do customers value meetings? Do they value rules? Do they value quick access to cash? Do they value knowing how to optimize loans or savings? What about flexible loans? Accessible savings? Do they value a friendly promoter? Or doing the books? Or monitoring fellow villagers?

At the heart of the mainstream approach to service is this imperative: Examine the preferences of customers as customers, independent of operating systems or constraints.

Many microfinance program managers first look at how they do business now, and then they see how their programs might fit customer needs. When interviewing customers to understand preferences, managers are seeking a fit between what their programs offer and what the customers want. They look at MIS, accounting, credit methodology, constraints in promotion techniques, and so on. Rarely do they really look at what the customer values.

To illustrate the importance of what customers truly value, let us take an example from mainstream business. For years, fast-food restaurants assumed that customers valued wide menu selection, healthy food, many special promotions, and fancy equipment. One fast-food leader took the time to do a little research and found that customers valued three things, and three things only: (1) food quality, (2) service quality, and (3) physical appearance. That's all. Other features were nice but did not create value. In other words, customers did not want to pay for these other features.

The company then invested large sums to strengthen each of these three areas. Three things happened. First, the company became more efficient. Because it only had to focus on three things, it could eliminate the cost of all other features. Second, sales increased by 60%. Third, a decrease in costs plus an increase in revenues generated additional profits of 25%.

There are many ways to ask our customers what they value. The best way is to seek out our customers and listen. Whatever method we choose, we must not limit questioning to what we already offer or how we currently offer our services.

The Bottom Line

We must find out what customers value and engineer operations around these "domains" of value. This would help us eliminate unnecessary activities and reduce costs.

Why Customers Leave

In an interview, Michael Selbst, a marketing vice president for BankBoston, noted that businesses built on repeat business, such as credit card companies and banks, lose about 10–12% of their customers a year (August, 2000). These businesses are not subsidized, nor are they monopolies. Quite the opposite; they operate in fiercely competitive environments. At CRS our microfinance programs also experience 12–30% customer erosion per year. By contrast, we are subsidized, at least initially, and we often operate in the absence of competition. So how do we justify a similar attrition rate?

Do we know why our customers leave? Generally, we know that some move out of town, some die, some switch to competitors, some are asked to leave because of their poor performance, and some go back to meeting their needs the same way they did before using our services. They go back to tucking rice into bamboo and coins into piggy banks, and they go back to borrowing from relatives and moneylenders. It is quite possible, then, that our biggest competitor is "going-back-to-the-way-things were." But sadly, most microfinance programs do not routinely perform interviews to find out just why customers leave.

Mainstream commerce on the other hand, invests staff and money in studying why repeat business goes elsewhere. This kind of research has a very specific objective: to find out why customers leave and how their needs are being met now. For example, Staples, the office superstore, as profiled in a 1990 Harvard Business Review article, "constantly tracks defections, so when customers stop doing business there or don't buy certain products, the store notices it immediately and calls to get feedback." The article goes on to say "defection analysis can also help companies decide what service-quality investments will be profitable" (Reichheld & Sasser, p.109).

Savvy businesses use "defection" information to make important investment decisions. For example, if long lines at a bank cause customers to look elsewhere, the bank may invest

in more ATMs or more teller windows. If customers defect from a favored office supply store because prices are too high, the company may choose to cut prices or find better value alternatives. If customers move to a new airline because the wait for making telephone reservations is too long, managers may invest in a better phone system and more reservation representatives. Investments are made to improve processes that directly affect the customers' experience.

The Bottom Line

Like their mainstream counterparts, microfinance programs must study what motivates customers to leave. This information will help us to make wise investments to improve performance and increase profits.

The Value of Customers as Income Streams

As a sector, our proposition to donors is that financial services are essential services. Some go so far as to say that credit is a human right. However, when looking at attrition rates of 12–30% per annum, as cited in a recent survey completed by the Catholic Relief Services,[1] we face a dilemma. Either we are wrong about the importance of financial services in the lives of our customers, or we are not providing a service valuable enough to keep these customers.

Beyond our proposition to donors, attrition is alarming. Attrition holds us back from our mission of service to the poor. Moreover, it is expensive and can negatively affect sustainability.

Serious levels of attrition tell us that something is wrong. In the formal, industrialized financial sector, customers do not withdraw completely from financial services. Imagine we decide to stop using local banking services entirely, we decide to resume borrowing from friends and stashing cash under our mattress. This is hard to imagine. Because once we have access to financial services, we will probably want them for a lifetime. Yet much of our programming at CRS shows that customers are voting with their feet.[2] They are leaving our

programs even though in many instances no obvious alternative exists. We need to value customers more.

The "lifetime value of a customer" is a concept that cautions businesses to stop seeing customers as transactions. For example, a man walks into a used-Mercedes lot and is seen as a $20,000 sale by Ed, the owner. Ed markets his cars based on transactional thinking—using a slick, quick-sale approach. The customer buys the car but thinks Ed is pushy, vowing next time to shop elsewhere.

Now, imagine Ed does a bit of research and finds that the average used-Mercedes owner purchases a Mercedes every four years and that about 80% of this market does not move out of town. He also knows his first-time customer is 28 years old. Ed does the math. This first-time customer will probably purchase a used Mercedes eleven times during his life, generating commissions of $220,000. Assuming 80% of these customers stay in town, the potential income stream to Ed is $176,000 for each first-time customer.

How does this thinking apply to microfinance? If programs view customers as a source of monthly revenue, then each customer produces gross revenues of perhaps $3. But looking at a customer's lifetime value to the program, would it be fair to say that each is worth not $3, but rather $1,440 (assuming that each adult wants 40 years of financial services)? If a program holds steady at 5,000 customers but has an annual attrition rate of 20%, then in a single year, that program has lost $1.4 million of future income through attrition.

The Bottom Line

Each customer is a lifelong income stream *vital* to a microfinance program.

The Value of Customers as Profit Streams

Income streams are valuable to a business. Of course, so are profit streams. One study analyzed a number of service industries, including the credit card, auto servicing, and industrial

distribution industries. The study found that reducing defections of loyal customers by 5% can boost profits 25% to 85%. New profits came from increased purchases, higher balances, reduced operating costs, and new customer referrals (Reichheld & Sasser, 1990).

In microfinance, a customer's value over time is also of great importance. Imagine we conduct a cost/revenue analysis in one microfinance program. We track the monthly costs and income from a new customer that we have attracted into our program. During the customer's first year, she maintains an average balance of $75, paying about 3% interest monthly.

In that first year, our new customer brings us revenue of $2.25 per month for nine months. It costs us $2.50 to bring her into our program and get her ready for the first loan. She then costs $1.20 per month to maintain. Her annual profit contribution in her first year is $6.95.

If we follow similar logic in this customer's second year, the balance rises to $100. Costs remain steady at $1.20 per month, so she produces a profit contribution of $21.60. In her third year, if her balance rises again to $125, her profit contribution is $30.60.

The Bottom Line

For companies wishing to stay vital and profitable, retaining current customers is essential to reaching those goals. Microfinance programs must track dropouts and focus substantial investment on retaining current customers.

Conclusion

The chief enterprise of microfinance to date has been the delivery of credit to microentrepreneurs. Recently, we have seen growing interest in offering more flexible services, but we have not gone far enough. Too often, changes have been slow, incremental, and straitjacketed by managerial dogma. Rigor mortis has set in. Microfinance institutions lack the drive to operate creatively and the mandate to respond to customers. Orthodoxy rules.

Managers, it seems, prefer to please customers only to the extent that their current systems can handle customer satisfaction. They gear systems to stem the cost of delinquency, but not the cost of attrition—the cost of lost customers. In fact, so little attention is paid to attrition that it is hard to find good data on why customers leave. But our myopia cannot last indefinitely. If systems are not redrawn to support more satisfied customers, our institutions will continue to see the revolving door of customers spin. The cost of lost revenues will advance unchecked. Eventually, we may run out of customers.

We must launch a full-scale attack on attrition. We must radically depart from how we see our business, the business of microfinance, by looking beyond our systems to our customers. In doing so we will benefit from greater revenues and greater profits. We must offer not just a product, but a solution. When we solve a customer's problem, we become an integral part of that customer's life.

Focusing on customers may necessitate reengineering what we do. It may mean developing new systems to give frontline staff more latitude in making decisions. It may mean investing in different MIS to manage loans and savings that support the full complement of a household's financial needs. Whatever it means, if we manage the process well, we will most likely see an increase in growth. Customers will stay with us longer. They will refer new customers to us. We will spread initial marketing costs over more and more people. We will hold on to our more profitable customers, those with higher balances, and will benefit from the revenues they bring. But most important, focusing on our customers places our mission front and center, giving us a greater promise of offering the poor the services they value.

Notes

1. These figures are based on CRS Poverty Lending Status reports and reports from several organizations during the SEEP 2000 annual meeting.

2. CRS Poverty Lending Status reports (1998–2000) indicate attrition levels of at least 12% and usually more. Some organizations report up to 30% but are really "not sure" because attrition is not tracked.

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Performance Measures for Microenterprise in the United States

by Karen Doyle and Jerry Black

Abstract: Microenterprise, while currently serving a small number of America's poor, is often the only option—other than receiving welfare—for a variety of individuals to improve their standard of living or quality of life. MicroTest, a project of the Aspen Institute, was created to improve the value of microenterprise services and the stability of microenterprise organizations over time by perfecting and promoting the use of measures to regularly assess performance. This article proposes a performance measurement framework for U.S. microenterprise development programs.

The following key categories of outputs and outcomes can be used to assess the performance of microenterprise development providers:

- Reaching Target Groups
- Scale
- Program Services
- Program Services Performance
- Costs, Efficiency, and Sustainability
- Institutional Capacity and Financial Condition
- Outcomes and Impact

As the microenterprise field matures, there is a growing need for some level of standardization in these performance assessments. However, there is a need to balance the simplicity and accessibility of standardization with the diversity of this field. The performance measurement framework described in this article begins the process of determining excellence among distinct strategies, targeted to different populations, and implemented in unique socioeconomic environments by a broad range of microenterprise development organizations.

Introduction

Microenterprise development is one of the more flexible tools available to low-income families who want to better their standard of living or quality of life. While it is but a small piece of the puzzle in terms of mitigating the country's wealth disparity, microenterprise can be one of the only options, other than receiving welfare, for a variety of individuals at certain times in their lives. For example, self-employment may be one of the few viable options for the following people:

- An individual struggling to find living-wage employment in an economically depressed area.
- A non-English speaking but skilled or educated immigrant.
- A dislocated worker affected by lay-offs.
- A disabled person who has been constrained from finding traditional employment.
- A minimum-wage worker, probably holding down several jobs, who sees no other chance to climb out of poverty.
- A single mother who cannot afford reliable childcare or chooses to work from home while raising children.

Because these potential microentrepreneurs are at critical periods in their lives, it is imperative not to waste their time, limited resources, and motivation with inefficient or minimally helpful programs. Poor Americans are among the busiest members of the population, often holding down multiple jobs, perhaps working in a business on the side or attending classes in hopes of competing for a better job. It is critical that microenterprise development programs regularly assess the extent to which they are efficient and effective in working

Karen Doyle is the Director of Special Projects at the Aspen Institute's Economic Opportunities Program. She focuses on fundraising, project design, and external relations for the EOP and manages learning assessments for its Fund for Innovation, Effectiveness, Learning and Dissemination (FIELD).

Jerry Black is a Program Manager at the Aspen Institute's Economic Opportunities Program. He manages two projects related to microenterprise development: MicroTest, a national performance measurement and outcomes monitoring project that currently includes over 50 microenterprise practitioners; and a project to improve the management information systems of microenterprise programs.

with these individuals. In recognition of this, microenterprise program directors who were collaborating with the Aspen Institute's Economic Opportunities Program created MicroTest, a working group of practitioners from around the country who are committed to documenting and improving the performance of the U.S. microenterprise industry.

This article describes MicroTest and then, using the MicroTest philosophy, process, and system of measures as a base, proposes a performance measurement framework for U.S. microenterprise programs.

The MicroTest Model

MicroTest's long-term purpose is to improve the quality of microenterprise services and the stability of microenterprise organizations over time by perfecting and promoting the use of measures to regularly assess performance. The MicroTest practitioner-led steering committee contends that performance standards that are *embraced and used* will increase quality throughout the field, will increase the availability of efficient and effective microenterprise services, and will help investors and policymakers discern accurately what is an excellent microenterprise program. The Aspen Institute's Microenterprise Fund for Innovation, Effectiveness, Learning, and Dissemination (FIELD) manages MicroTest. A steering committee of seven practitioners from around the country advise and guide the effort.

From an initial cohort of 13 programs in 1997, MicroTest has grown to 54 Practitioner Member agencies. Although a strictly voluntary effort, membership in MicroTest has been competitive. This selection process has emphasized each agency's (1) organizational track record; (2) interest in performance measures; (3) motivation to participate in a learning effort with industrywide implications; and (4) in-house information gathering capacity.

The primary task of the original cohort was to develop, define, and test a set of performance measures for the field. The

cohort was composed of one or two staff people, typically the executive director and the evaluation manager, who participated in this initial effort. The first step was to collect one month's worth of program data on measures proposed by the Aspen facilitators. As issues on definitions and data collection methods arose, group members posted questions to each other on an electronic listserv moderated by Aspen staff. They also used the listserv to comment on the usefulness of the proposed measures and to propose additional measures. Each agency emailed the data to the Aspen Institute, where staff ensured that it was collected in a manner consistent with that of the rest of the group. Issues that were easy to resolve were discussed over the listserv. More complex issues and decisions on measure definitions were discussed only in person at semiannual meetings. Every other month, the Aspen facilitators proposed new measures for the group to discuss, test, and refine. After a year, the agencies had learned how to collect data consistently on all the refined measures. They then completed a data test for the 1998 fiscal year on the entire set of measures. Aspen presented this data in aggregate form to the group at a meeting, so that the practitioners could reflect on what the data told them and make the final decisions on which MicroTest measures were useful and appropriate, and which should be changed or eliminated.

The MicroTest process benefited greatly from an explicit trust agreement among all MicroTest members and Aspen facilitators. This oral agreement stated that no MicroTest member (including facilitators) would share data or information about another program outside of the group, and that data collection tools would not be circulated until they had been tested and endorsed. This agreement, as well as the absence of funders in the room, fostered honesty and candor about programs' difficulties in collecting data and in implementing their programs. The ability to talk openly about their programs' challenges with other program managers was deemed a welcome and invaluable tool for improving program quality and efficiency.

While the MicroTest process has been more time-consuming on the front end than other efforts to develop performance measures, it has enjoyed tremendous support and input from the practitioner community. It is they who are most affected by performance measurement and who know best the reality of delivering microenterprise services to a variety of populations. Additionally, the process of testing and debating how an entire field should be measured created a structure for identifying and debating potential best practices and for defining success across the field. Lastly, individual MicroTest members report an increased capacity to use data as a decision-making tool to improve their programs. One of MicroTest's steering committee members, Eloise Vitelli (Maine Centers for Women, Work, and Community, personal communication) explains:

> Participation in the MicroTest Core Group has proven to be both an inspiration to me personally and a source of very practical benefits to our organization as a whole. . . .Exchanging ideas and experiences with a cross-section of my peers in developing and testing the Measures continues to enrich my work in microenterprise development. What makes it work for me is the strong underlying commitment of everyone involved to provide quality programs and services. We may not have all the answers yet about what makes a quality microenterprise program, but we are beginning to ask many of the right questions.

The Context of Performance Measurement

Microenterprise development, more than traditional development services, has been affected by the rise in performance measurement of the last fifteen years. Government mandates and public sector funders typically provide the impetus for performance measurement of development programs. With respect to microenterprise development, the federal and state governments have indeed played a significant role in the drive

for better performance data. Yet just as significant has been the role of the U.S. practitioner community and private foundations. Practitioners, hoping to attract bank partners and needing to demonstrate increasingly efficient operations to ensure ongoing subsidy, launched the MicroTest initiative and various state-level efforts to devise appropriate performance measures. These practitioners were further motivated by the likelihood that performance data would clarify whether comparisons being made between U.S. microenterprise development programs and developing world microfinance programs were valid.[1] The private foundations, on the other hand, have promoted the need for performance measurement because these funders need information to help them determine whether microenterprise is a promising strategy for advancing their objectives. As discussed below, these objectives vary widely.

In the 1980s, microenterprise assistance was introduced in the U.S. as a new strategy for accomplishing a range of distinct goals. Among these goals were the creation of jobs among dislocated workers and the unemployed; improving the economic self-sufficiency of poor families; transitioning welfare recipients to self-employment; and increasing the collective assets of poor communities. Piloting this untested approach, early microenterprise development programs were funded as demonstration projects with accompanying independent and externally managed evaluations. Therefore, the earliest performance measures (used by evaluators on just a few of the early programs) mirrored the values and goals of disparate government and private funders.

Even though the field has matured—yielding a surge in the number of performance measures in use—the state of performance measurement for microenterprise remains fragmented and is indeed bewildering for the majority of programs. Only very recently are there nascent discussions about attempts to coordinate general reporting requirements, and perhaps, specific performance measures at the federal level. Practitioners, recognizing that the need for performance data is growing,

have expressed their strong desire for a universal performance measurement framework through which measures capturing similar information can be consolidated or coordinated.[2] At the same time, practitioners are concerned that this framework be sufficiently comprehensive to allow for the breadth of microenterprise outcomes and strategies.

A Proposed Framework for Microenterprise Performance Assessment

The following is a conceptual framework of performance measurement categories. It presents key categories of outputs and outcomes by which microenterprise development providers can assess their performance. The framework draws heavily on the MicroTest Key Performance Areas, as well as on ACCION International's work on performance standards for its U.S. Network, the National Community Capital Association's Best Practices Project, and a review (Doyle, 2000) of other state and federal reporting systems. While not every category is appropriate for every program, this framework captures the "pillars" of microenterprise performance. It is meant to remind one of the range of performance areas and to mitigate the tendency to evaluate complex program(s) according to unidimensional criteria. An organization's leadership can then decide what is relevant. Whatever framework is ultimately used to guide performance measurement, it must be comprehensive enough so that data can be understood and are not isolated from other pertinent information. Where possible, preliminary data from MicroTest are provided in order to relate the framework to practice.

The key categories are

- Reaching Target Groups
- Scale
- Program Services
- Program Services Performance
- Costs, Efficiency, and Sustainability
- Institutional Capacity and Financial Condition
- Outcomes and Impact

Reaching Target Groups: Low-Income Clients

This first category of measures helps answer the question "Whom is the program actually serving?" Most microenterprise programs describe a target population that reflects their overall program mission. Therefore, another set of questions that this category of measures sheds some light on is "Is the program fulfilling its mission? Is the program offering services attractive to and accessible by the individuals whom the organization has identified as its target population?" The target group measures are evaluated in light of an organization's operating context and mission. One would expect to see a program with a poverty-alleviation mission serving a significant number of low- and very low-income individuals, while a program focused on community economic development may serve some moderate income individuals to meet business development or job creation goals.

Table 1 shows targeting data from fiscal year 1999 for 41 MicroTest programs. The first column shows data on all MicroTest programs. The second and third columns show data for two groups, depending on the extent to which programs report serving low-income individuals whose household income puts them at or below 150% of the national poverty line (according to guidelines established by the Department of Health and Human Services) and as determined by staff of the microenterprise program at the time each client enters that program.

Table 1. Low-Income Clients Served

	All Programs (n = 41)	Programs serving ≥40% low income (n = 19)	Programs serving <40% low income (n = 22)
	Median % of total clients		
Low-income (≤ 100% HHS guidelines)	27%	36%	16%
Low-income (≤ 150% HHS guidelines)	38%	55%	29%
Low-income (≤ 80% HUD guidelines)	61%	78%	52%

Income and poverty guidelines established by the government are based either on local area median income or on criteria that are widely acknowledged as inadequate—resulting in underrepresentation of the number of poor in the U.S. Thus, the MicroTest group chose to report the number of clients who are low-income based on three sets of guidelines. The *number and percent of clients at or below 100% of HHS poverty guidelines* reflects clients who everyone would agree are poor—their incomes are acknowledged to be at or below what is considered subsistence level. There is a widespread sentiment that this particular poverty guideline is set so low that, used as the sole yardstick, it would seriously undercount the number of economically disadvantaged people who are reached by many microenterprise programs. As a result, MicroTest members chose to report the *number and percent of clients at or below 150% of HHS poverty* as well, enabling a fuller picture of the number of poor served. Finally, there is controversy over the use of a poverty measure that does not recognize cost of living differentials. The

Department of Housing & Urban Development's (HUD) local area median income is a proxy for this variability. The MicroTest members added the *number and percent of clients whose incomes are at or below 80% of HUD local area median income* as the final income measure.

In isolation, poverty-targeting information does not tell us much, other than, of course, how many low-income people are being reached with microenterprise development services. But if we look at other areas of performance and relate them to poverty targeting, then we start to have something interesting to study and understand. For example, does serving a high percentage of very poor clients seem important in terms of a program's ability to make a lot of loans or attract more trainees (i.e., achieve scale)? What are the cost implications of targeting a high percentage of very poor clients? Do loans to the very poor require more staff time to make and monitor? Are they riskier in terms of loan losses?

While answers to these questions cannot be based on one year's data, the 1999 MicroTest data indicates some tentative relationships worth mentioning. There does seem to be a relationship between serving a high percentage of low-income clients and performance indicators related to the loan portfolio quality of a microenterprise program. This relationship is indicated in Table 2.

Table 2. Low-Income Clients and Loan Portfolio Quality

	All MicroTest programs (n = 41)	Programs serving ≥40% low income (n = 19)	Programs serving < 40% low income (n = 22)
		Median number	
Number of loans outstanding as of end of FY99	49	39	59
Percentage of portfolio loaned to start-ups	37%	61%	36%
Restructured loan rate	9%	20%	5%
Loan loss rate	4%	9%	3%
Total portfolio at risk	12%	13%	11%

Of the 41 MicroTest programs reporting credit performance information, 19 of them serve at least 40% low-income clients and 22 serve less than 40% low-income clients. While the above information conceals a range of performance in both groups (i.e., there are poverty-focused programs whose portfolio quality figures are quite excellent), some fairly strong differences show up in MicroTest data. It is possible, for example, that lending to a high percentage of low-income individuals also entails lending to a high percentage of start-up microenterprises. Given the bumpy road most start-up businesses follow, it is not surprising that this sort of lending also tends to involve more work restructuring those loans to deal with the bumps, fits, and starts that characterize the path of a start-up business. The restructured loan rate for MicroTest programs that target a high percentage of low-income people is four times as high as the rate for MicroTest programs that do not serve as many low-income clients with credit products. Poverty-focused lending programs also experience loan losses at a higher rate than other programs.

Reaching Target Groups: Women and Minority Clients

In the microenterprise field's brief history in the U.S., a number of programs have been established that focus on serving women or ethnic or racial minority populations. Two of the MicroTest measures (*number and percent women clients* and *number and percent minority clients*) allow a program to measure its outreach to minorities and women, both groups believed to have enjoyed less access to formal business assistance institutions. Table 3 shows targeting information by gender and minority status for all MicroTest programs, grouped together in three ways: whether the programs primarily deliver credit or training, whether they serve a higher or lower percentage of low income clients, and whether the program is considered young (less than 6 years old) or older (6 years or older.)

Table 3. Outreach to Women and Minorities

	All programs (n=43)	Credit programs (n=18)	Training programs (n=25)	≥40% low income (n=18)	<40% low income (n=22)	Programs < 6 years old (n=11)	Programs ≥ 6 years old (n=32)
	Median % of total clients						
Women	56%	50%	70%	73%	55%	63%	56%
Minorities	38%	48%	19%	39%	26%	16%	39%

Again, this is just a snapshot of median figures over one fiscal year; it does not display the range of targeting data among MicroTest programs. Many programs, for example, work entirely with either women or minorities. A few work almost exclusively with minority women. Within the MicroTest sample overall, however, training-led programs reach more women, while credit-led programs reach more minority clients.

Scale

The scale category is designed to measure the extent of a program's reach. *How many clients/borrowers/trainees has the program*

served? How many businesses has the program helped to start or maintain? Inherent in the scale category is the need to agree on another question: *How much service does a person need to receive in order to be considered a program client?* For example, if one person attends a one-time workshop and another attends a ten-week training class, are both individuals counted as clients?

At the field level, policymakers and practitioners use the scale category to learn the true market for microenterprise services and the field's capacity to serve the market. Conventional wisdom, data estimates, and recent market surveys (Clark and Kays, 1999) identify millions of low-income and disadvantaged microentrepreneurs, many of whom could benefit from services but who have not been reached by providers. At the organization level, managers use measures in this category to glean what portion of the local market the program serves. They also use data from the scale category to build cost and efficiency ratios. Finally, programs compare scale data with outcomes data to assess how many people or businesses they can serve effectively and still achieve desired goals. Table 4 shows median figures for three measures of Scale, and how these three measures differ across different kinds of programs, as in Table 3.

Table 4. Scale of Programs

	All programs (n=44)	Credit-led (n=17)	Training-led (n=21)	<6 years old (n=10)	≥6 years old (n=28)	≥ 40% low income (n=16)	< 40% low income (n=19)
				Median number			
Total clients	184.5	270	164	120	192	201	144.5
Total loans disbursed	20	63	13	26	20	15	26.5
Dollar value of loans disbursed	$124,500	$432,353	$34,238	$70,000	$173,900	$57,574	$184,500

MicroTest programs disbursed a median 20 loans during FY99. The average, however, was 58, indicating a wide range of lending activities across programs from a minimum of 0 loans to a maximum of 541 loans. MicroTest programs provided intensive training or technical assistance to a median 164 (average of 218) individuals. The median number of clients served in FY99 by MicroTest programs was 184.5, the range being 19–1,244 clients served.

Figure 1. Number of Served by FY99 Programs

Figure 1 shows a further breakdown of the extent to which some MicroTest programs are achieving higher levels of scale. A "client" is someone who receives substantial services, and for whom, as a result, outcomes are expected to be observed. Figure 1 reflects the fact that most programs are currently able to reach up to 200 clients in a year with an intensive level of service. The largest programs in MicroTest are those reaching over 400 clients a year, representing 13.3% of the group.

Program Services

This category is critical in that it provides programs an opportunity to describe their methodologies, thereby contextu-

alizing quantitative data in other categories. This is envisioned as an open-ended, narrative description of the services offered through the microenterprise program. A program describes all loans, equity products, or savings products that are used as microenterprise development tools; lending methodologies such as peer or individual; terms and conditions; and charge-off policies. Training is described in terms of major curricula topics, course objectives, length in terms of hours and weeks, and providers. Technical assistance, a broad area of service, may include one-on-one consulting, mentoring, peer workshops, economic literacy counseling, etc. Programs describe the purpose of any technical assistance, hours and type offered, and providers. Marketing services are sufficiently broad and undefined at this time to warrant fully open-ended descriptions. Table 5 is an example of a program services description.

Table 5. Sample Program Services Report on Training and Technical Assistance

Name of Course	Course Content	Duration
Enterprise Basics	Develop business plan	30 hours
Core Skills	Marketing, cashflow, operations, success	16 hours
Market Enhancement	Professional development, marketing, operations, finanial evaluation	28 hours
Mentorship Program	Ongoing meetings with existing business owner	Variable

Lending Methodologies: Individual Lending

Name of Loan Product: Microventure Loan

Loan Size Range: $100–$15,000

Loan Term (in months): 36–60 months

Charge-off Policies: Our board and staff review all loans on a semiannual basis, writing off any loan that is over 180 days past due, except loans that have been rescheduled and are performing.

Program Services Performance

This section includes loan delinquency and loss rates—the measures most commonly associated with microenterprise performance assessment. Measures used to document and report on the financial performance include *loan loss and restructured loan rates, portfolio at risk* at a range of time periods, *percent of portfolio loaned to start-ups*, and *average initial loan size*. Table 6 displays some of this MicroTest FY99 data. Discussions within the MicroTest group illustrate an inherent conflict within the microenterprise strategy that necessitates a wide variety of measures. In order to document that the organization is achieving balance between *its role as a financial institution and its mission as a development organization*, the program should show a certain amount of risk-taking—thus traditional financial performance indicators alone cannot serve as useful evaluation tools. An interesting difference that appears to show up in the FY99 portfolio quality data in Table 6 is the extent to which training-led and credit-led programs lend to start-ups. At the same time, however, most of the organizations recognize the importance of a disciplined financial services program: that the median loan loss rate for all MicroTest programs is just 4% speaks to this discipline. Nevertheless, the loan loss rate for MicroTest programs ranged widely, from 0% to 30%.

Table 6. Program Service Performance

	All credit programs (n = 38)	Credit-led (n = 19)	Training-led (n = 27)	< 6 years old (n = 12)	≥ 6 years old (n = 34)	≥ 40% low income (n = 19)	< 40% low income (n = 22)
	Median Numbers						
Number of loans outstanding as of end of FY99	49	89	33.5	48.5	53	39	59
Percentage of portfolio loaned to start-ups	37%	23%	61%	21%	37%	61%	36%
Restructured loan rate	9%	6%	10%	7%	9%	20%	5%
Loan loss rate	4%	4%	4%	6%	4%	9%	3%
Total porfolio at risk	12%	11%	14%	11%	12%	13%	11%

To contextualize these figures, one needs to examine historical loan loss rates, the size of the outstanding portfolio, the number of loans made to start-up businesses, the number to individuals new to entrepreneurship, and the number to poor clients, as well as interview program staff and management.

The measures used to document program service performance are heavily biased toward finance. However, this category is also intended as a benchmark for other components within the microenterprise strategy as well. These include business development training and technical assistance, market-access assistance, matched savings programs, economic-literacy training, and credit, legal, or personal counseling. While portfolio performance indicators are well developed, it has been much more difficult to create useful measures for nonfinancial microenterprise services. One challenge, for example, is how to measure the collective performance of distinct training programs. Other services, such as market access and economic literacy programs, are still new within microenterprise devel-

opment, as are corresponding efforts to define performance measures for these services.

While programs view these services as critical to their clients' success, there have been few efforts to assess their effectiveness rigorously. Experience has largely focused on a set of measures applied during or at course completion, including comparing enrollment and graduation rates; pre- and post-course knowledge testing; the successful production of business plans; and satisfaction surveys. About 75% of MicroTest program clients who enroll in a training program complete it, and complete business plans (see Table 7). Programs also have used indirect measures of demand, such as willingness to pay some portion of training or technical assistance costs as evidence that clients value their services (Edgecomb, 1999).

Table 7. Performance of Training Programs

	All programs (n=31)	Credit-led (n=6)	Training-led (n=18)	Younger (n=7)	Older (n=17)	≥40% low income (n=11)	<40% low income (n=12)
	Median % of total scheduled to complete						
Training completion rates	74%	72%	74%	76%	74%	69%	91%
Business plan completion rates	75%	91%	71%	95%	75%	72%	86%

Attrition does not appear to be a serious problem among MicroTest programs that offer classes to their clients. The one notable difference that shows up is the disparity in training completion between programs serving different proportions of low-income clients. Not surprisingly, this difference supports common assumptions among practitioners that vulnerable life circumstances can make regular attendance over an extended period of weeks at a training course problematic. In general, however, the strength of these completion rates should be

understood as one of the strengths of the microenterprise field—those who are reached with microenterprise development services tend to get a lot out of them and to stick with them as long as they can.

Costs, Efficiency, and Sustainability

This category contains essential and interdependent measures for assessing microenterprise performance. Program-level financial information is needed to calculate the cost, efficiency, and sustainability ratios. The cost figures help us make rough comparisons of the investment that was required to train one client, assist one business, disburse one loan, serve one participant, etc. Both public and private sector investors are keenly interested in cost data. Moreover, efficiency and cost ratios can serve as "wake-up calls" to program managers who need to restructure inefficient aspects of operations.

The sustainability ratios yield a sense of the current level of cost recovery from program income, as well as the level of funding diversification achieved by the program. The term "sustainability" is used in the U.S. context, as is "self-sufficiency," for two reasons. (Self-sufficiency, in simple terms, refers to a program being fully self-financing.) First, programs operating in this economy face exceedingly high barriers to self-sufficiency. Second, client demand necessitates a focus on business development services as well as on financing services. While a few highly successful institutions—ones that concentrate on lending and target existing business owners—have attained or are nearing self-sufficiency of their lending operations, it is doubtful that the majority of programs in the U.S. will achieve full financial self-sufficiency. The levels of operational self-sufficiency achieved by MicroTest programs as of the end of FY99 ranged from 0 % to 95%, with a median level of 14 % (see Table 8).

Over 20% of all MicroTest programs are generating at least 25% of their total funding from their lending and training activities. This includes training-program cost recovery, which ranges from 0% to 21%.

Table 8. Operational Self-Sufficiency

	All programs (n=36)	Credit-led (n=11)	Training-led (n=11)	Younger (n=4)	Older (n=18)	>40% low income (n=10)	<40% low income (n=12)
	Median figures						
Cost per client	$1,933	$1,723	$2,257	$1,776	$2,237	$1,665	$2,209
Cost per business assisted	$2,270	$1,750	$2,783	$1,893	$2,582	$1,936	$2,564
Cost of training per client	$949	$738	$1,426	$1,098	$805	$752	$880
Operational cost rate	0.9	0.7	1.9	2.6	0.9	1.4	1.2
Operational self-sufficiency	14%	25%	14%	6%	23%	20%	17%

While the median cost per client is $1,933 for FY99, as Table 8 shows, the median does not take into account the wide range of costs across all programs. The lowest cost cluster of programs (the 20th percentile) have costs that hover at $1,163 per client or less. The highest cost cluster (or 80th percentile) of programs indicate a cost per client of $2,822 or more per client.

In order to be able to see even more clearly the distribution of client costs, Figure 2 shows the frequency of programs with various client costs. It is clear that although the majority of programs are clustered around $2,000, there are quite a number with lower client costs and a small number of outlier programs with significantly higher costs per client.

Figure 2. Client Cost for FY99

Figure 3. Training Costs for FY99

Figure 3 shows the range of training costs per MicroTest program. While the average and median figures for cost per training/TA client are $1,334 and $949 respectively, the frequency distribution indicates the range of figures for this measure. There are two outliers with significant training costs; however, the majority of the programs cluster between $50 and $2,450 cost per training client.

Institutional Capacity and Financial Condition

This category relates to the strength and solidity of the program and institution in which a microenterprise program is housed. As with the previous category, these are measures that assess management quality rather than programmatic quality. Many microenterprise development programs are housed within community development financial institutions (CDFIs.) Through its Best Practices Project, an effort to strengthen the CDFI field, the National Community Capital Association identified fifteen "Performance Principles"—fundamental attributes and core competencies that foster strong performance. Performance principles are grouped in four strategic areas: Mission and Strategy; Market and Programs; Human Resources; and Finance and Information. Here are a few illustrative examples:

- The CDFI is visible in its market and leverages its visibility to further its mission.
- The CDFI has leadership, a set of core values, and an institutional culture that supports its mission.
- The CDFI has a board of directors and governance structure that furthers the organization's mission, fosters institutional strength, and ensures accountability to the public.
- The CDFI manages its affairs in accord with sound financial practices and applicable statutory requirements to achieve its purposes, promote institutional strength, and be accountable to its investors and funders.

Financial condition measures relate to the overall financial condition of the organization; they are ones that assess management

quality rather than programmatic quality. They include an examination of the organization's net worth, net operating income, capital adequacy, and leverage. This category encourages microenterprise organizations to think about capital structure and reserve policies. Several of these kinds of ratios are derived from an organization's balance sheet and are relevant for any nonprofit organization; others are geared to lenders only, specifically to those with high loan volume or heavily capitalized portfolios (Klein, J., memo to MicroTest core group, April 14, 1998). Examples of financial condition measures include *capital structure*, *net operating income*, and *loss reserves*.

Outcomes and Impact

Most microenterprise programs are founded with some variation of an economic or community development mission or as a poverty-alleviation strategy. Programs and their funders are critically concerned with *business and job creation*, *income generation*, and other outcomes measurable at the level of the individual, the business, the community, or the economy. Measuring these outcomes requires establishing a baseline and then following up to remeasure over time. For example, a poverty alleviation program that collects information on *household income* and *family size* showing that a client is poor upon enrollment in the program would have to update this data at a determined period after program participation to know whether the *client escaped poverty*. This type of ongoing data collection is known as *outcome monitoring*, and most community-based enterprise programs find it difficult to do on a consistent basis. Collecting this type of data requires mail, telephone, or in-person surveys or interviews that can be expensive and time consuming. Because most programs do not have staff designated for evaluation activities, they hire evaluation firms to conduct queries of samples of their clients when required by funders.

Because of strong interest in collecting outcomes data, MicroTest has developed several instruments that support simple client tracking. These are being tested now by select

members of the MicroTest working group. The intent of this future outcomes work is to develop a simple annual process that mirrors the overall performance measurement exercise, providing some simple and key data to give program managers and program funders insight into program effectiveness.

Conclusion

The broad appeal of microenterprise development has resulted in many funders (and particularly those concerned with assisting low-income Americans to achieve economic self-sufficiency) carving out a place for microenterprise development within their overall community economic development strategies. This has also resulted in a variety of performance measurement systems, each representing the unique cultures and missions of the funding program and its implementing partners. However, as the field has matured and as we learn more about its successes and problems, there is a growing consensus that some level of standardization in performance assessment is sorely needed. The performance measurement framework described in this article can serve as a basis for defining what is meant by a high-quality microenterprise program (Aspen Institute, 1997). The ability to define, and subsequently to assess and compare quality, is important to both practitioners who seek to improve program operations and investors who need to assess which programs can manage capital and achieve intended outcomes.

The next step for the field, standards development, is no simple endeavor. How will the field determine excellence among distinct strategies, targeted to different populations, and implemented in unique socioeconomic environments by a range of institutional types? A rural program cannot be judged by the same numeric or narrative standard as an urban one. A refugee-assistance program should not be held to the same rates of job creation as a program that delivers intensive marketing assistance to existing business owners. And a stand-alone microenterprise institution may take longer to develop systems and policies and to attract capital than a community development

credit union that adds a microenterprise product; the efficiency ratios of these dissimilar institutions will and most likely should differ. In cases such as these—ones representative of the diversity of the field—care must be taken when developing any set or sets of standards. There is a need to balance the simplicity and accessibility of standardization with the veracity and intricacy required by this decentralized, diversified field. In that vein, it remains important to familiarize ourselves with the range of performance measures currently in use, their rationale, and their relative significance to overall performance assessment of microenterprise development.

Notes

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1. In general, microenterprise development professionals now recognize that comparing developing world programs with programs in industrialized economies is inappropriate. However, the general public and some policymakers still relate the successes of well-known, developing world microfinance institutions to their support of domestic microenterprise programs. This can create problems if expectations for U.S. microenterprise development (that may be unrealistic) are not met.

2. While staff at the Aspen Institute have repeatedly heard this sentiment from our practitioner partners in a variety of forums, it was formally expressed during the March 1999 MicroTest meeting and through the Association for Enterprise Opportunity's Research and Demonstration Committee.

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Client Information Sharing in Bolivia

by Anita Campion

Abstract: As the microfinance industry becomes more competitive, microfinance institutions (MFIs) increasingly seek access to credit bureaus and credit information agencies. The growing number of microfinance providers in the market results in borrowers having more access to loans, which can lead to client overindebtedness and default. By sharing client information with each other and by using credit bureau information on client history and indebtedness, MFIs facing competition can reduce their credit risk and avoid unnecessary losses. While the growing interest in credit bureaus for microfinance is global, to date, few countries have credit unions and even fewer include microfinance clients in their databases. However, technological advances have lowered the costs of maintaining a large database of information and have made the cost of operating a credit bureau more financially feasible. Credit bureaus are now sprouting up, particularly in Latin America, and microfinance institutions are vying for access to their databases of information. This article presents the case of Bolivia, a country which has experienced extreme competition among microfinance providers, and which is now making efforts to integrate microfinance clients into its credit information system.

Introduction

Microfinance in Bolivia has gone from one extreme to another—from low-income clients having very little access to loans in the 1980s to some microfinance clients now overly indebted. Twenty-three percent of BancoSol's clients currently have outstanding loans with other institutions, and many of these clients are overly indebted. The Bolivian credit bureau has played a key role in allowing regulated lenders to avoid granting loans to overly indebted clients and clients who have

defaulted on loans in the past. This service to the financial institutions and to their clients also benefits the general public.

Regulated financial institutions appreciate the service provided by the credit bureau because it improves their ability to make loan decisions. Knowing a client's credit history facilitates the institution's assessment of the credit risk involved, i.e., the chance that a client may default on a loan. Clients with past performance problems indicate a higher risk. Microfinance institutions (MFIs) address this risk by either rejecting the loan request or by creating terms that better fit the risk profile of the borrower.

The public credit bureau benefits clients too because it reduces their chances of becoming overly indebted. Clients often don't know how much debt they can handle. Financial institutions use the information contained in the credit bureau's database to verify the client's current level of indebtedness. The institution takes this debt into account when calculating clients' repayment ability. Even though many microfinance institutions now accept guaranties, the objective is always to avoid overindebtedness. Regulated MFIs are in the lending business for the long-term and therefore aim to develop long-lasting client relationships.

The Bolivian credit bureau is a public asset because it helps to stabilize the financial sector, which influences the general state of the economy. The existence of the credit bureau has helped to improve repayments from institutions in liquidation, including Banco Cochabamba, BancoSur, and Banco Internacional de Desarrollo. Clients know that they will have difficulties accessing a loan from another financial institution in the future if they don't repay their existing loan,

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Anita Campion is employed by Chemonics International, Inc., a consulting firm specializing in developing and emerging market countries. Prior to accepting her position at Chemonics, she was Director of the MicroFinance Network. Anita has fourteen years of combined experience in formal and informal finance, including positions with the Peace Corps and as a small business consultant. Anita has published widely in the area of microfinance.

even if the existing loan was borrowed from an institution that no longer exists.

Many microfinance institutions are not regulated and do not have access to the superintendency's credit bureau to assess client indebtedness. Microfinance providers have sought to overcome this and other limitations of the superintendency's credit bureau by creating informal systems for information sharing and by tapping other sources of public information. In addition, the superintendency is researching the possibility of expanding its services to unregulated microfinance institutions in the near future.

The Bolivian Superintendency's Credit Bureau

Since 1988, the Bolivian Superintendency has operated the only legal credit bureau in Bolivia. Through this public credit bureau, the superintendency requires that all regulated financial institutions share information on their clients' indebtedness and repayment histories on a monthly basis. The superintendency currently regulates seventy regulated financial institutions, including thirteen banks, thirteen credit unions, seven Private Financial Funds (PFFs),[1] and a number of cooperatives. The superintendency's database contains information on approximately one million clients.[2] The credit bureau receives approximately five thousand inquiries per day, which is accessible 24 hours per day, 365 days per year via the Intranet.

The database tracks 140 different variables on the regulated financial institutions' clients and their guarantors. The superintendency uses this information for two purposes. First, it uses it to review the state of the economy and the health of local financial institutions. This review helps the superintendency determine its inspection visits schedule; priority is given to those institutions with indications of poor portfolio quality and other internal operational problems. Second, it uses the information for its credit bureau, for which approximately 30 of the 140 variables of information

are shared with regulated financial institutions to support loan decisions.

How It Works

The credit bureau is a useful tool for those regulated institutions that have access to its database. Financial institutions can use the Bolivian credit bureau not only to check a client's credit history, which facilitates more informed loan decision-making, but they can also use the information to avoid client overindebtedness, a growing problem in Bolivia in the past two years. The financial institution's process of participation in the data collection and information sharing includes the following steps:

Collecting client information. At the end of each month, the financial institutions compile financial statements and information, including the names, identification card numbers, balances owed, guaranty amounts, and amounts in arrears, indicating the amount of time past due for all loan clients. The institutions do not share where the client lives, the type of business owned or where the business is located. The omission of this information reduces the chance that the database will be used by competitors to steal clients.

Submitting data. In addition to submitting financial statements, regulated financial institutions must report client information to the superintendency within ten days of the end of each month. These clients include both individuals and corporate entities. Most of the institutions send in their information via Intranet. A few financial institutions that don't have access to the Internet send in computer diskettes with the information. This method of submission is the most prone to problems, such as the late arrival of the information or the diskette becoming demagnetized and therefore unreadable.

When the superintendency receives the information, it runs an automated validation of figures and balances, and checks for logical consistency. Once the superintendency validates the information, it consolidates it into the central database.

Sharing information. Client information is compiled and shared in three ways: (1) on line, (2) by download, and (3) in written reports. The Bolivian credit bureau has an Intranet system whereby participating financial institutions can access information on all clients in the database. It also has a public web site, located at http://www.supernet.bo. Checking client histories electronically is the most expensive to the financial institution because it requires high-level telecommunications and computer operating systems. Accessing client information online from the Intranet offers the most up-to-date and complete information to aid the institutions in making educated lending decisions. A less expensive alternative is for institutions to download the information in batch overnight. This method of checking the database is less time-consuming, since the downloaded database can be quickly reviewed without the delays of finding a web page. In addition to these two methods of sharing information, the superintendency also sends the financial institutions a summarized hard copy of all its clients' information. This report is not used to approve loans, but it acts as a control by which institutions can check if their information is correctly recorded. Caja Los Andes' credit committees use this report to review and assess credit ratings.

Using the information for loan decisions. The superintendency requires financial institutions to use the information in the credit bureau's database to make loan decisions. (Managers from BancoSol, Caja Los Andes, and PRODEM reported that they would use the credit bureau even if it were not a legal requirement.) This requirement applies to all loan clients, including new loans and renewals, individual loans, and loans made to solidarity group members. However, the credit check is only the first step of the loan decision process, which also entails a thorough review of the client's repayment capacity.

For each loan decision, the superintendency requires that financial institutions obtain written permission from clients to check their credit histories. The superintendency regularly checks that financial institutions access only the database to

clear potential clients who have granted them permission by manually comparing the written permission with the list of names accessed. If the superintendency finds that an institution violated this restriction, it will send either a written letter of warning or fine the institution.

To make an inquiry online, the financial institution enters a user name and password. Then, using the client's name or identification number, the employee can look up the client's credit history. Table 1 displays the online format of the Bolivian credit bureau's database for a fictitious client.

Table 1. Sample Inquiry into Bolivia's Credit Bureau Database

Direct Loan History

Financial Institution	Qualification Status	Active Loans	Late > 30 days	Past Due (30–90 days)	In Legal process (90+ days)	Available Credit Line	Written off
BancoSol	1	200,000	0	0	0	0	0
Total		200,000					

Loan Guarantee History

Financial Institution	Qualification Status	Active Loans	Late 30 days	Past due (30–90 days)	In Legal Process (90+ days)	Available Credit Line	Written off
Total							

The client displayed in Table 1 has one outstanding loan with BancolSol with a remaining balance of 200,000 Bolivianos. The superintendency records all transactions in Bolivianos. If the loan was issued in dollars, then the value in Bolivianos is updated monthly using current exchange rates. If another individual guaranteed the loan, then the guarantor's information shows on the same screen directly below the borrower's information. The qualification status of "1" indicates that this person has no current repayment problems. Table 2 displays the rankings used by

the Superintendency for qualification status. The superintendency discourages regulated financial institutions from lending to borrowers with a qualification ranking of "4" or "5," those with loans in legal processes or written off, by requiring that institutions provision 100 percent of those loans.

Table 2—Bolivia's Qualification Status Rankings

Qualification Status	Indicates
1	No problems, normal active loans and up to five days past due (0–5 days late)
2	Potential problems (6–30 days late)
3	Unsatisfactory (31–60 days late)
4	Doubtful (61–90 days late)
5	Write offs (over 90 days late and in legal processes)

Most microfinance institutions lend primarily to clients with qualification rankings of "1" or "2." The lender might require a higher level of guarantee on a loan or reduce the loan amount for a client with a ranking of "2" than for a client with a "1" ranking. MFIs might lend to clients with a qualification status of "3" on an existing loan depending on the circumstances that caused the late payments, however, they will usually require that the borrower pay off the loan before issuing a new one. If the client claims he or she has already repaid a loan that still shows on the credit bureau report, the MFI will ask the client to show receipts or acquire a written letter from the former lender indicating proof of payment.

Institutions that want to limit their time online can conduct batch inquiries, combining information up to fifty clients. In this case, the financial institution creates the inquiry in Notepad or another basic software program that operates in ASCII format. The institution then cuts and pastes the ASCII file into a

software program that simulates the online system and sends it by mail to the superintendency. The superintendency provides the software to institutions with no Internet access.

Cost Issues

The Bolivian credit bureau offers services to financial institutions that help increase their operational efficiency by improving their loan decision processes, which can lead to higher profits. In light of this fact, the Bolivian credit bureau attempts to cover its costs by passing on the expenses to the primary beneficiaries—the regulated financial institutions.

Costs to run the credit bureau. The superintendency estimates that its costs to set up the credit bureau were approximately $98,000. Maintenance costs are currently about $31,000 per year, not including staff time. Table 3 details the items involved in these expense estimates.

Table 3. Setup and Operational Costs of the Bolivian Credit Bureau

Setup Items	Setup Costs	Monthly Maintenance	Maintenance Costs
Computer equipment	$90,000	Telecommunications	$31,000
Software—Lotus Notes	8,000		
Total	$98,000		$31,000

Costs to the financial institution. There is no per consultation cost for checking a client's history in the credit bureau's database. The cost is covered in the annual fee that financial institutions pay to the superintendency for regulation and supervision. The annual fee equals 1/1000 of the financial institution's total assets. With this method of calculating regulatory fees, traditional financial institutions in essence cross-subsidize the expenses related to credit bureau service of microfinance institutions. MFIs tend to have a smaller asset base than traditional

institutions but a larger volume of clients. Therefore, MFIs tend to pay a lower annual fee and yet make a greater number of inquiries to the credit bureau every year. Nonetheless, the regulatory fees cover many more expenses than just those related to the credit bureau, and in general, it is more costly to supervise larger banks than small microfinance institutions.

Limitations

The Bolivian public credit bureau's database is not complete. It does not include microfinance NGO clients and offers only limited information on regulated financial clients' histories. The current system tries to meet all of the superintendency's needs in one database, which tracks all the variables necessary for every type of loan, including consumer, microfinance, and housing loans. Because of its sheer size and the volume of information, the credit bureau database is difficult to use for all the potential purposes it could serve.

Failure to include clients of nonregulated lenders. As mentioned earlier, the superintendency's credit bureau tracks only information on loans issued by one of its regulated financial institutions. The superintendency does not regulate microfinance NGOs and foundations, so their loan clients are not included in the database. The Superintendent estimates that approximately 120,000 loan clients are not included in the database. Some cooperatives do not fall under the superintendency's supervision, and no microfinance NGOs are included in the credit bureau. Therefore, 11 percent of all loan clients in Bolivia are not tracked by the credit bureau, and if one of those clients wants to take a loan from a regulated institution, he or she may have difficulty, even with a perfect repayment record. The same would apply to clients of regulated institutions who wish to take a loan from an unregulated MFI or cooperative.

Time limits of the data. The superintendency's database currently tracks only the past two months of clients' credit histories. If the client pays off the past-due loan, he or she wipes the slate clean—there are no long-term impacts on the credit history.

However, clients who have not yet repaid an overdue loan remain in the database until the loan is paid off. The credit bureau system in the United States tracks client information for seven years, after which past defaults no longer appear in a client's credit report. The upside to such a system is that unlike the Bolivian system, it keeps any past problems with repayment in the system for several years whether or not the loan was repaid; the downside is that once seven years have passed, even outstanding loans are wiped off the record.

Too many variables. The public credit bureau currently contains 140 different variables of information for each loan client it tracks. While these variables are used for many other purposes than just the credit bureau, this number of variables is excessive, making it difficult to maneuver the database and use it in other ways that might be more beneficial. The volume of information is as much as the current system can handle, which limits the amount of client history the database tracks.

Consumer lending and microfinance are housed in the same database. Some consumer lenders have misused information obtained from the credit bureau. Consumer financiers, such as ACCESO and Crediágil, began treating microenterprise clients as consumer loan clients. They eliminated the character and business assessment process and issued loans strictly on the basis of stated income. These institutions lent freely to former clients of microfinance institutions, such as BancoSol. They assumed that if the clients had been good clients of an MFI in the past, they would be good clients in the future. The end result was that many of these clients became overly indebted and defaulted, which caused financial losses for consumer lenders and reduced business for MFIs. In the future, consumer lenders will only have access to certain pertinent information in the database, namely the salary of the client it wishes to serve.

Future Plans

The superintendency is in the process of addressing these four limitations by researching alternatives to give microfinance NGOs access to client histories, as well as ways to make its database more manageable.

Including NGOs. In April 2000, Bolivia passed an economic reactivation law, which allows for the creation of a private credit bureau. The law of banks and financial entities modified the interpretation of this law to allow the superintendency to provide partial information from its credit bureau to targeted private entities, information related strictly to micro and consumer credit. As a result, the superintendency will probably continue to maintain its database of information but will begin to share it with and include others, such as microfinance NGOs and foundations. The Superintendent estimates that within six months, microfinance NGOs will be able to access credit bureau information either from the superintendency or from another private entity. They are now studying the alternatives. One possibility is to allow an NGO, such as FinRural, to be the broker of information for the microfinance NGOs, which is discussed later.

Changes to the database. The superintendency is also in the process of overhauling and revising the database systems. It plans to reduce the number of variables of client information from 140 to 40 variables in the near future. The superintendency also plans to separate microcredit from consumer lending, housing, and commercial. Microfinance will be distinguished from consumer finance by the source of the client's income. If the loan is based on a formal salary, it is a consumer loan; if based on revenue generated from a microenterprise, it is a microfinance loan. By creating a separate database for microfinance with fewer variables for each client, the credit bureau's database will become much smaller and therefore more manageable. This restructuring of the database will allow the credit bureau to track more information on each client's history. The Superintendency's objective

is to extend the time period shown in the database to include a one-year credit history for each client.

Remaining Issues and Challenges

Some other issues and challenges have surfaced related to Bolivia's public credit bureau. These are issues that other countries or individuals looking to build a credit bureau system may want to consider.

Issues

Two interesting consequences resulted from the creation of the Bolivian credit bureau. First, the current credit bureau system was structured in such a way that it undermines the solidarity lending method and has added to the movement away from group lending toward individual lending in Bolivia. Second, some financial institutions have used the client information in credit history files to steal customers from other financial institutions, which has probably fueled the competitive environment in Bolivia.

The undermining of solidarity lending methodology. Bolivia's credit bureau undermines the solidarity lending method by tracking only individuals who defaulted, not their associated group members. Solidarity lending works well in a strong economy to reduce credit risk resulting from moral hazard—the risk of loan loss from clients who have no intent to repay. However, when there is an economic downturn, as in Bolivia now, financial difficulties can lead to default for some clients. The default of one member can result in a domino effect, in which others drop out of the group instead of repaying the other member's loan.

Because Bolivia's credit bureau does not track this information, a group client can refuse to cover another member's loan loss without impacting his or her ability to access a loan from another institution in the future. As the cohesion of many solidarity groups eroded during the recent economic crisis in Bolivia, Caja Los Andes took advantage of the situation by

significantly increasing its client base; it offered individual loans to former group clients of other MFIs for the first time. This is not a concern for the superintendency, but it is a concern for solidarity group lenders such as BancoSol, who have had to review their product lines and make adaptations to accommodate a changing competitive environment.

Stealing clients. Some MFIs have used information in the credit bureau to steal each other's business. For example, when a credit check reveals that the client has a loan with another financial institution, one MFI admitted that it often issues the client a loan sufficient to pay off the other loan and to meet its additional financing needs. Client stealing is a natural phenomenon of a competitive industry. With or without a credit bureau, financial institutions always attempt to steal business from their competitors.

Challenges

The Bolivian credit bureau now faces the challenge of linking microfinance NGO clients to its database in a cost-effective manner. In addition, the credit bureau's database offers a potential opportunity to use the information to develop a credit-scoring model for microfinance lending.

Cost-effectively linking NGOs to public credit bureau. It is too early to assess the value of including microfinance NGO clients in the credit bureau database. Undoubtedly, including NGOs will be a costly endeavor, especially when compared to the potential benefits. The inclusion of microfinance NGO clients in the credit bureau is not very important to the well-being of the financial system, given the small average loan size of these 120,000 clients which fall outside the formal financial system. Given the relative costs of tracking such information, it may be difficult to convince other countries to include NGO clients, especially if they aim to build sustainable credit bureaus.

Using information for credit scoring. Once the Superintendency develops a separate database for microfinance clients' credit histories, this information could be used to

develop a credit-scoring model to improve the efficiency of microfinance lending. Credit scoring is a method by which the financial institution calculates the risk and makes loan decisions based strictly on a set of specific criteria that have proven successful to lending decisions in the past. For example, past history information might indicate that 40-year-old clients are less risky than 22-year-olds and that it's less risky to lend to bakery owners than to construction company owners. Criteria, such as age and business segment, can then be used in making the loan decision or in setting the terms of the loan, i.e., offering lower interest rate loans to clients with lower credit risk scores.

BancoSol has enough information to begin to analyze data to be used later in credit scoring. BancoSol does not now have the funds to make this investment, but management is interested in developing a credit-scoring model for microfinance lending sometime in the near future. Developing a credit-scoring model is a large undertaking. It would be most efficient if it were developed at the national level, using information contained in the public credit bureau.

Additional Systems of Information Sharing

Microfinance institutions have found creative ways to overcome some of the limitations of the public credit bureau. MFIs have developed informal systems and accessed alternative formal systems to acquire information on high-risk clients who are not tracked in the Superintendency's database. The three most common additional systems of client information sharing among MFIs are blacklists, an informal credit bureau managed by the association FinRural, and Siprotec, a private entity that sells public information.

Blacklists

Regulated microfinance institutions compile internal blacklists and have exchanged them with other MFIs in an effort to track loan performance problems that do not appear in the credit bureau's reports. In particular, MFIs track information on

clients that have been slow to repay their loans in the past but have no current repayment problems. Credit risks for these clients are higher than for those clients who have always repaid on time. In addition, MFIs that offer solidarity loans, in which group members co-guarantee loans, track members who have not covered a member's default. Finally, MFIs also include on their blacklists the names of especially difficult customers whose business they no longer desire.

Internal blacklists. Most MFIs maintain an internal blacklist of bad loan clients, which it uses to reduce the chance the institution will lend to the same defaulter twice. The first step in the loan approval process at BancoSol is for the credit officer to check the internal database to see if the loan request is from a previous customer, and if it is, to assess his or her repayment history. BancoSol uses this information to determine the credit risk associated with the client based on past experience. This information can also be helpful in avoiding repeat lending to bad clients who go to another branch or region to apply for a loan.

Informal sharing. Several MFIs, including NGOs and regulated institutions, share the names of high-risk loan clients with each other. The blacklist sharing process is done on an informal basis each month. There is no agreement that requires an institution to participate in the exchange. However, only those MFIs that offer client blacklists receive blacklists from the others. The list contains only the names and identification numbers of past delinquent loan clients, so it does not violate clients' privacy rights. One limitation is that blacklists are exchanged only on a regional basis, so a delinquent borrower could move to another region and not be tracked in this system.

The NGOs' Credit Bureaus

In addition to MFIs sharing their internal blacklists, there has been another grassroots effort to improve access to information on bad clients who receive loans outside the formal financial system in Bolivia. FinRural and CIPAME, two nongovernmental associations, offered credit bureau services to NGOs in Bolivia

from 1996 to 1998. Operating outside the formal sector, these associations of NGOs developed databases to track bad loan clients with information primarily from and for microfinance NGOs. These services were discontinued due to the limitations of the system, given that they only provided information on NGO clients with loan classifications of "4" or "5."

How it works. FINRURAL and CIPAME operate similarly, with FINRURAL targeting rural areas and CIPAME focusing on urban NGOs. Participating NGOs provide the names, identification numbers, and number of days past due of all bad loan clients. FINRURAL and CIPAME each compile the data and put it into a database which they share with the same MFIs that provided the data. Their credit bureaus offer information on clients in risk categories four and five only, i.e., with loans over ninety days past due.

Shortcomings. This system of information sharing has had some limitations. It does not fully meet the needs of microfinance NGOs for client credit history information. The information was incomplete—it did not include bad former clients of regulated financial institutions. Additionally, there were inconsistencies in the level of participation of the NGOs involved. Some NGOs, such as PRODEM, had adequate information systems to ensure accurate and timely data, while others did not. Many NGOs were three months late in their reporting, which caused PRODEM to begin to report only clients who were over ninety days past due on their loans. If the data is not timely or accurate, it is less helpful in reducing credit risks.

Potential solutions. FINRURAL is currently negotiating with the superintendency to become the liaison between the public credit bureau and the NGO credit bureau. The objective is for FINRURAL to provide NGOs with access to the public credit bureau and to include NGO information in the superintendency's credit bureau. This would be a great benefit to microfinance NGOs that currently have no way to verify how many of their clients have loans with regulated MFIs. It would

also be beneficial to regulated microfinance lenders to have a fuller picture of client indebtedness. This plan is currently awaiting official approval.

Cost to implement. FINRURAL estimates that it will need approximately $200,000 to train NGOs and develop their capacities to contribute timely and accurate data. In addition, FINRURAL will need $70,000 more to improve the physical and electronic security of the NGOs' computer systems. FINRURAL's end objective is to increase transparency of microfinance NGO information and to standardize the NGOs' financial reporting.

Private Brokers of Public Information

In an effort to make the best loan decisions, some MFIs pay for access to a database of public information managed by Siprotec, a private company. As a part of Bolivia's Department of Commerce, Siprotec operates much like the Better Business Bureau in the United States. Siprotec provides records of publicly available data, including penal and civil judgments. For example, if a potential client has not paid his or her alimony, that information would be on public record and would be available from Siprotec. This information can be helpful to financial institutions, which attempt to assess the borrower's character. For example, Siprotec has records of people whose businesses have failed. While this is not a civil offense, the information is helpful in assessing the risk involved in lending to the same person for a new business venture.

Siprotec began operations in 1995 but maintains past history information from 1989 to the present. Siprotec has a database of over two million names, including both individuals and corporate entities. Eighty percent of all regulated financial institutions in Bolivia use this service, including BancoSol, PRODEM, and FIE. While Siprotec has over two hundred subscribers, regulated financial institutions make the majority of the inquiries.

Costs. Anyone who is willing to pay can access the information from Siprotec. Table 4 displays Siprotec's prices for its

services per number of inquiries each month. These per-inquiry prices are in addition to the monthly contract fee, which is $10 for affiliates of the Department of Commerce and $15 for nonaffiliates. Siprotec's pricing rewards high volume customers as the per-inquiry cost drops with an increase in the total number of inquiries.

Table 4: Siprotec's Pricing per Monthly Inquiries

Number of Monthly Inquiries	Cost per Inquiry
0–4	Included in contract fee
5–20	$2.00
21–50	$1.80
51–100	$1.70
101+	$1.60

BancoSol began using Siprotec's services in December 1999. In another region where Siprotec does not have services, BancoSol uses a similar private company called Datos. BancoSol uses the Siprotec service only for its small business lending—for clients requesting loans greater than $30,000. If the search under a person's name and identification number reveals some negative press or a pending civil judgment, BancoSol will often question the client and conduct a minor investigation to determine whether it affects the loan decision. Caja Los Andes is using Siprotec's database for its larger microfinance clients who request loans over $5,000.

Limitations. In addition to legal announcements, Siprotec extracts information from newspapers and from other publications. Newspapers often publish only the names of people involved in an incident without giving a corresponding identification number. With common names this can result in confusion, making it difficult to link a certain instance to the

proper person. Participating institutions have to be careful not to use this incomplete information in a way that could offend potential clients, for example, by accusing them of a wrongdoing they have not committed.

Even though the information is publicly available data, it seems risky to be the broker of such precarious information. Siprotec tracks only negative publicity. Nonetheless, no one has filed a lawsuit against Siprotec to date.

Summary and Conclusions

A host of complementary instruments work together to keep Bolivia's financial institutions informed about potential customers. The credit bureau is only part of the network of instruments. Some parts of this network are the result of the ingenuity of the country's MFIs, which created ways to learn about borrowers when the formal system did not accommodate needed information. Other parts of the system, namely Siprotec, are the results of a healthy private economy in which information is a valuable asset.

Bolivia is on its way to housing one of the most complete sets of information on loan clients in the developing world. There are, however, some limitations of the system, the most salient being incomplete information or inability to access information. The Bolivian Superintendency is working to overcome many of these limitations, including the fact that NGO clients are currently excluded from the database.

The main challenge in implementing changes is that many will add to the cost structure more than they will add to the revenue structure. To provide a system that is sustainable far into the future, the superintendency must take costs into consideration as it builds this information network.

Notes

1. A PFF is a nonbank financial intermediary, which is a special regulatory category the Bolivian Superintendency created specifically to serve small business and microenterprise borrowers.

2. Some of these clients may be repeated in the database.

India's Regional Rural Banks: The Institutional Dimension of Reforms

by Nitin Bhatt and Y. S. P. Thorat

Abstract: Efforts to reform India's failing Regional Rural Banks (RRBs) have had limited impact, because reformers have paid little attention to the institutional dimensions of the problems facing the banks. Few efforts were made to redesign the perverse institutional arrangements that gave rise to incompatible incentive structures for key stakeholders, such as political leaders, policy makers, stockholders, bank staff, and clients. We recommend that the next leg of reforms focus on aligning the incentives of these stakeholders by giving greater importance to the RRBs' internal organizational contexts and larger policy environments.

Introduction

Financial sector reform has been a major component of the structural adjustments being implemented in India since 1991. A key focus of these efforts has been on reforming the Regional Rural Banks (RRBs)—India's state-owned development finance vehicles charged with serving the rural poor, especially microentrepreneurs, in the agricultural and nonfarm sectors.

Originally established to drive the moneylender "out of business" and bridge the capital gap supposedly unfilled by the rural cooperatives and commercial banks, these "social banking" institutions have expanded remarkably throughout the country during the last two decades.[1] In 1991, for instance, there were

196 RRBs with over 14,000 branches in 375 districts nationwide,[2] with an average coverage of three villages per branch.[3] The banks had disbursed over Rs. 35,000 million in credit and mobilized over Rs. 49,000 million in deposits.[4]

Despite this impressive geographic coverage and intermediation activity, however, the RRBs suffered from poor financial health, especially because of mounting loan losses. As of June 1993, 172 RRBs were unprofitable, and aggregate loan recovery performance was at 40.8 percent.[5] While loan losses had wiped out the equity and reserves of some banks, they were eating into the deposits of others, underscoring the need for fundamental changes in the way RRBs conducted business (Joshi & Little, 1996; Mudgil & Thorat, 1995).

Although a series of banking reforms have been initiated since 1993 to make the RRB system viable, recent assessments suggest that the performance of the banks in the postreform period has been less encouraging than expected (Gupta, 1998; Kaladhar, 1997). While aggregate profitability seems to have improved slightly, becoming less negative, the overall quality of loan portfolio management, administration and collection still remains a matter of grave concern (R. Rosenberg, Senior Advisor, CGAP, personal communication, May 20, 1999). For instance, accumulated RRB losses through March 31, 1998, were reported at almost Rs. 27,870 million; losses for the year ending that date were Rs. 736.5 million.

Some of the reports of better viability are actually erroneous, because they result from inappropriate techniques for measuring loan recovery.[6] Further, many RRBs are actually achieving better results by moving away from their mission of serving the poor—either by putting their money into investments rather than lending it,[7] or by lending to nonpoor clients (Mosley, 1996; Rosenberg, 1999). The latter is partly evidenced

Nitin Bhatt is Manager with Grant Thornton, LLP's Entrepreneurial Consulting Services Practice in Los Angeles, and former Executive Director of University of Southern California's Business Expansion Network.

Y. S. P. Thorat is Regional Director of the Reserve Bank and former Additional Chief General Manager of RBI's Rural Planning and Credit Department.

by a gradual increase in the average loan size and the continued bias against women borrowers (Ghosh, 1998; Kaladhar, 1997).[8] As a result, the dependence of the rural poor on informal credit continues to be significant (Machiraju, 1999; World Bank, 1998). This has seemingly defeated a central objective of the government's rural development strategy, which is to deepen and widen the availability of finance to India's historically excluded communities.

This paper suggests that efforts to reform the RRBs have had a limited impact because reformers have paid little attention to the institutional dimensions of the problems facing the banks. Specifically, few efforts were made to redesign the perverse institutional arrangements that gave rise to incompatible incentive structures for key stakeholders, such as politicians, policy makers, stockholders, bank staff, and clients. We recommend that the next leg of reforms focus on aligning the incentives of these stakeholders by giving greater importance to the internal organizational context as well as the larger policy environment within which the RRBs operate.

The remainder of this paper is divided into four sections. The first section discusses the role of institutions and incentives in shaping the performance of development finance programs. The second section highlights the impact of institutional arrangements facing key stakeholders in the prereform era. The third section argues that the reforms introduced since 1993 have not adequately addressed the incompatibility of these incentives, and provides recommendations for getting the incentives right. Finally, the fourth section draws some general policy implications, and concludes that ultimately, political support for the reform process will be the key determinant of the extent to which the RRBs can be turned around.

Institutions, Incentives, and Performance

Institutions and incentives are important determinants of organizational performance in development finance initiatives (Stiglitz, 1990; Williamson, 1995).

Institutions and Incentives

Institutions are key to understanding the performance of economic development programs (Lin & Nugent, 1995). Conceptualized as constraints that shape the behavioral relations among individuals and groups, institutions can be either formal or informal (North, 1990). For example, they can include a region's formal constitution and laws, as well as its informal customs, culture, and norms of day-to-day conduct. Institutional arrangements, defined as specific and mutually agreed upon constraints, have the ability to govern relationships in social, economic, and political interactions (Bates, 1990; Ferris & Tang, 1993). Such constraints can either be voluntarily accepted through traditional values and prevailing societal norms, or enforced and policed through an external authority, such as a country's judicial system.

In analyzing the performance of development finance programs, it is important to examine constraints at the policy, program, and client levels (see Table 1). For example, policy-level constraints might include a country's laws and regulatory statutes. Program-level constraints include criteria formulated by board members and used by program managers to screen borrowers, make lending decisions, collect loans, and assess program performance. Finally, client-level constraints take into account rules faced by borrowers and savers in accessing and using financial services.

Each of the three levels of constraints is characterized by players who are accountable to a set of stakeholders (the principals) on the one hand, and who on the other hand monitor the performance of another set of stakeholders (the agents). For example, although politicians are agents of the public, they serve as lawmakers and hence as principals for the government arms that oversee development finance programs. Similarly, a program's management might be accountable to different owners/sponsors, regulators, and governing bodies, such as the board of directors (principals), while simultaneously overseeing lending and deposit-taking activities with its clients

(agents). Since these clients are part of the larger population that elects the politicians, they also, at least theoretically, serve as principals for the politicians.

The aggregate performance of the "system" depends on the extent to which the incentives faced by principals and agents are compatible (Sappington, 1991). The standard way to align incentives is to increase the agent's return when the principal's objective is achieved and vice versa.

Table 1: Constraints Facing Stakeholders in Development Finance Programs

Constraints	Public Interest Groups
Policy-level constraints	Sponsors, Governments, Boards, Regulators
Program-level constraints	Development Finance Programs
Client-level constraints	Borrowers, Savers

Program Performance

When one considers that development finance programs are often characterized by players at different levels of bureaucratic and political interaction (Braverman & Guasch, 1993; Hulme & Mosley, 1996), it becomes immediately apparent that changes in opportunities and constraints faced by players at one level can change the incentives structures they face. This further changes opportunities, constraints, and incentives at the next level, and so on. Indeed, it is the "failure of policymakers to account for multiple agency problems in lending institutions [that] bears responsibility for a large part of the poor performance of government rural credit programs in the last three decades" (Braverman & Guasch, 1993, p. 54).

Research by the present authors (accepted for publication in *Policy Studies Journal*) highlights the need to identify agency problems. It provides an example of how incentive incompatibility

among multiple levels of institutional arrangements can render development finance programs ineffective. If shareholders or donors insist on increasing lending volume and outreach, program officers can feel pressured to make larger loans without appropriate screening. In many such instances, influence and patronage bias the distribution of credit in favor of wealthier and well-connected landholders, who do not feel obligated to repay the loans. This leads to high loan defaults and lax collection efforts, especially when the lending agency has few incentives to engage in intensive loan collection. Poor repayment performance often sends a signal to the community that nonrepayment will be pardoned; and as a result, borrowers have incentives to willfully default on the loans.

Inappropriate institutional arrangements between politicians and administrators also result in perverse incentives, for example, in state-owned banks. Since most bureaucracies are bound to serve the law and elected officials, they may find themselves faced with new rules and constraints when a new political party comes to power and wants to fulfill its campaign promises. For instance, if a politician advocates the delivery of cheap credit or promises the waiver of past due loans to buy votes, those commitments may take the form of new policies. Bankers in turn are instructed to implement the policies at the program and client levels, by reducing interest rates or writing off unpaid loan balances.

Finally, lack of appropriate institutional arrangements for punishing and rewarding program staff can also undermine the performance of development finance initiatives (Hulme & Mosley, 1996). This is especially true when civil service personnel policies do not sanction inferior performance and reward superior performance in an appropriate and timely fashion. Reports of successful development finance initiatives from around the world indicate that staff incentive structures, especially those that incorporate proper mixes of fixed salary and bonuses, can go a long way in enhancing a program's efficiency

and productivity (Baydas, Graham, & Valenzuela, 1997; Hulme & Mosley, 1996).

In the next section, we analyze the performance of India's Regional Rural Banks in the prereform period by considering how institutional arrangements and incentives have impacted various stakeholders in the RRB system.

Institutional Challenges and RRB Performance

Institutional constraints within the RRB system might be analyzed at two interfaces: the policy-program level, and the program-field level.

Policy-Program-Level Constraints

The poor performance of the RRBs was largely rooted in their adverse policy environment. Specifically, constraints imposed by the banks' objectives, governance structures, and business model were key determinants of their nonviability.

Objectives

The original objective of the RRBs was to bring progress with social justice to the rural poor, who were generally denied access to financial services from rural cooperatives as well as commercial banks (Machiraju, 1999). The rationale was that during the 60s and 70s, rural cooperatives were dominated by wealthy farmers, and the commercial banks had an urban bias. Therefore, most poor people turned to informal sources for their financing needs. In an effort to provide credit to the poor from institutional sources, the RRBs were established in 1975. It was thought that these banks would combine the rural focus of the cooperatives with the business orientation of the commercial banks, to make credit widely available to rural India's disadvantaged communities.

Given the initial objective of policy makers to increase outreach, the following two decades saw a large-scale effort to increase the number of banks, bank branches, and disbursements nationwide (Table 1). As a result, the number of RRBs increased from 6 in 1976 to 196 in 1999, and the number of branches

increased from 17 to over 14,000 during the same period. Most significantly, perhaps, loan amounts jumped from Rs. 1 million in 1975 to over Rs. 93,670 million in 1998–99.

Table 2. Expansion of RRB System, 1975–1999

Period ending	Banks	Branches	Loans	Deposits	CD Ratio
			(in Rs. Million)		
Dec. 1975	6	17	1.0	2.0	50
Dec. 1980	85	3,279	2433.8	1998.3	122
Dec. 1985	188	12,606	1,4076.7	12868.2	109
Mar. 1990	196	14,443	3,5540.4	41505.2	86
Mar. 1995	196	14,509	6,2909.7	11,1500.1	56
Mar. 1997	196	14,508	7,8526.6	15,4234.2	51
Mar. 1998	196	14,508	8,4866.2	19,3256.5	44
Mar. 1999	196	14,508	9,3672.1	23,5976.1	40

Scource: NABARD Reports

However, this portfolio growth was accompanied by loan losses that made the RRB system highly unprofitable. For example, accumulated losses amounted to Rs. 1263 million at the end of 1987, with 151 unprofitable banks. These losses increased to Rs. 2,1520.9 million by March 1996, with 152 banks losing money. But despite its nonviability, the RRB system was widely celebrated in political and administrative circles as a success, largely because of its immense outreach.

A key reason for this optimism was language contained in a report issued by the Narasimhan Committee in 1976, which stated that any losses incurred by the RRBs would be a price worth paying, given the social benefits that would be attained. The report suggested, for instance, that RRB losses "in the initial years . . . would need to be subsidized" (Reserve Bank of India, 1997, p. 29). Since the RRBs were established on this committee's recommendation, most stakeholders deemed the losses incurred by the banks over the next two decades as acceptable. In fact, many evaluators even provided a rationale for providing ongoing

subsidies to support the RRB system. For instance, some observers argued that "RRBs have become an important instrument for bringing about primary income distribution. This role of RRBs cannot be lost sight of, given the national objective of development with social justice. . . . The expenditure incurred on RRBs should be viewed as investment in weaker sections" (Velayudham & Sankaranarayanan, 1990, p. 2161).

Thus, from its very inception, the focus of the RRB system was to promote social justice through credit disbursement. Serving the poor and making a profit were seen as inherently contradictory. Since increasing outreach and covering costs was neither a stated objective nor a performance measure, financial viability was never made a priority by any stakeholder.

Governance Structures

The challenge of RRB governance needs to be understood in terms of constraints related to its ownership, control, and management.

In principle, each RRB was capitalized and owned 50 percent by the Government of India, 15 percent by the state government, and 35 percent by the (state-owned) commercial bank which agreed to "sponsor" it. In practice, the owners, usually the state governments, were in default on their capital contributions, thus weakening the equity base of the banks. The lack of interest in investing on the part of the shareholders resulted from the lack of incentives in contributing to ownership. Specifically, since the RRBs were a money-losing proposition from the very beginning, the prospect of participating in future profits was dim for the investors.

The multiple ownership of the RRBs led to a range of bureaucratic controls. These were specially pronounced in the case of RRB schemes, such as the Indian Rural Development Program (IRDP), in which a combination of government subsidy and term credit (in the ratio of 1:2) was provided to farmers and artisans to foster self-employment.[9] Although IRDP schemes were formally "housed" within the RRBs, and any lending conducted under the scheme affected the banks' financial statements,

the program was implemented through separate district-level entities known as District Rural Development Agencies (DRDAs). The governing body of the DRDAs included locally elected representatives at the national, state, and district level governments, as well as the heads of various district development departments. A separate State-Level Coordination Committee (SLCC) monitored the program at the state level, while the Ministry of Rural Areas and Employment was responsible for program funding, monitoring, and evaluation.

While some "controls" from these various entities translated into faulty business policies (discussed in detail in the next section), others resulted in a thicket of reporting rules and regulations issued by "higher" government bodies and departments, such as the Reserve Bank of India (RBI, India's Central Bank), and the National Bank for Agriculture and Rural Development (NABARD, India's apex refinancing agency for rural finance institutions owned by the Ministry of Finance and the Reserve Bank of India), the Ministry of Finance, and the state governments. Many such reports overlapped in their requirements, wasting time and effort for the bank staff. For instance, during his field study of constraints faced by commercial bank staff nationwide, Gupta (1998, p. 32) found a "high degree of overlap in the reporting formats of the various government agencies" and recommended modifications in forms and reporting requirements to allow bank staff to devote more attention to "core banking business." Because the reporting requirements for RRBs are identical, Gupta's conclusion is equally valid for RRB staff.

The multiple policies imposed by the various government entities led to inefficient management practices (Reserve Bank of India, 1997). For instance, the government units controlled whom the RRBs lent to (including sectors, groups, and often specific individuals), what they lent for, the design and price of products, office locations, organizational structure, and human resource development issues (including recruitment, promotion, salaries, and disciplinary action). Given the top-down and static

nature of these policies, the owners' representatives on the board of directors,[10] as well as the sponsor bank and the RRB managers, had virtually no authority to make any strategic decision regarding the RRBs.

Devoid of freedom to make any "commercial" improvements to the system, most stakeholders, especially the sponsor banks, became apathetic towards RRB issues.[11] A study conducted by Government of India's (1989) Khusro Committee noted that the RRB boards did a poor job of monitoring their performance, simply because they had no interest in the affairs of the banks. In a large number of cases, boards consisted of political appointees unfamiliar with the technical aspects of banking and finance. Therefore, the informally accepted norm at the irregularly held board meetings was to skirt any issues related to lending policies or financial performance. Instead, they spent time discussing either personal issues or those related to "policy neutral" areas, such as staff recruitment (Mudgil & Thorat, 1995).

Lack of a single owner with clear ownership and control, and no prospects for profits, diffused accountability and weakened oversight of the RRBs, seriously impairing the governance of the banks.

Business Model

Rural banking policies, especially those prescribed by the RRB Act, made it difficult for the bankers to build a viable business model. For example, the RRBs were required to maintain high Statutory Liquidity Ratios (SLR) of 25 percent,12 a constraint that reduced the availability of capital. Also, the yields on SLR were lower than prevailing lending rates and thus implicitly taxed the RRBs. Further, unstandardized norms for income recognition made it difficult to assess accurately the financial performance of the banks, since income on loans included both interest that was paid as well as interest that was due. Not knowing how long interest payments had been in arrears, most managers found it difficult to provide for nonperforming assets.

In addition, constraints with respect to selecting borrowers, defining geographic markets, opening and closing branches, making and collecting loans, containing administrative costs, and setting interest rates were key barriers to enhancing financial sustainability.

For example, loans were to be disbursed in the absence of collateral to economically weaker sections of the rural population—households with land holdings less than 6.5 acres and incomes less than Rs. 10,000—located in specific and restricted geographic areas.[13] Banks were allowed to lend only predetermined amounts for specified lending terms. Loans were disbursed for production purposes only; consumption credit was seldom granted.[14] In the case of the IRDP scheme, the eligibility criteria were even more restrictive. For example, it was stipulated that at least 50 percent of assisted families belong to "lower status" castes and tribes, 40 percent of the clients be women, and 3 percent of the credit be disbursed to handicapped individuals. The actual selection of such "borrowers" was done not by lending officers, but by local government officials, who sent lists of "approved" individuals to the banks for loan disbursal.

One outcome of these restrictive policies was an increase in loan losses because of bad lending decisions. Those in need of credit for consumption often falsified loan requests. Given the pressure from government authorities to increase loan volume to meet quantitative targets, bank staff had little authority or incentive to engage in due diligence and assess the risks of lending to such individuals. Thus, lending decisions were often reduced to making superficial matches between individuals' socioeconomic profiles and the available schemes.

Further, since many schemes, including IRDP, called for the disbursement of a one-time loan, neither the lenders nor the borrowers were interested in maintaining a long-term relationship. Even though many poor borrowers did not have the ability to be productive entrepreneurs or the capacity to repay the loans, they participated in the programs to access what

they thought was "free money" from the government. In most cases, it was the wealthier sections of the community, with connections and political patronage, who benefited from the schemes. These well-to-do borrowers felt little pressure to repay their debts.

Finally, the lack of incentives among bank staff to engage in intensive loan collection, the unwillingness of state governments to assist in recovery procedures,[15] and the "blanket" loan waivers granted by the government further boosted loan losses. As a result, willful loan defaults became a norm over the years.[16]

In addition to the high risks associated with lending, the high cost of administration also constrained the RRBs' financial viability. For example, many bank branches were often forced to remain open even if areas had sparse populations and little potential for entrepreneurial activities. Further, a 1993 court victory by the bank workers' labor union granted RRB staff the same remuneration as their counterparts in sponsor banks and added to the banks' already escalating costs.

While the above factors hurt the banks' cost structure, it was the government-imposed ceiling on interest rates that dealt a severe blow to the banks' financial viability. Since these rates were fixed at 12 percent on loans below Rs. 200,000, and most of the RRB portfolio was confined to loans of this size, the banks were unable to charge for the high costs of making and servicing the small loans. According to Mosley (1996), the RRBs' Subsidy Dependence Index was 153 percent for 1992. This means that that the banks would have had to more than double their average lending rates of 16.6 percent or more than half overdues, just to break even during that year.[17]

But given the high profile and political stature of the RRBs, most observers felt that the implementation of high interest rates was "clearly not possible in view of the mandated role of these institutions for financing the weaker sections at concessional rates" (Mudgill & Thorat, 1995, p. 7).

Program-Field-Level Constraints

The challenges related to the RRBs' objectives, governance structures, and business model triggered additional constraints at the bank-client level. These constraints were related to the lack of appropriate infrastructure, low levels of motivation among RRB staff, and an inefficient loan delivery system.

Infrastructure

Since the RRBs were originally envisioned to serve as low-cost rural extensions of the banking system, few investments were made in their infrastructure development. According to field studies, for example, many bank buildings were unsecure and lacked appropriate roofing and access to basic amenities, such as water and electricity (Reserve Bank of India, 1997). Equipped with old furniture and dilapidated filing cabinets, storage space within many branches was lacking, and loan documents and records were often found stacked across the floor. Bank staff were neither provided vehicles nor a vehicle allowance to visit clients. A lack of calculators in some branches adversely affected the productivity, efficiency, and morale of the staff (Marguirite Robinson, HIID, personal communication, April 22, 1999).

Lack of appropriate infrastructure made working at the banks, and living in the villages, difficult propositions (Gupta, 1998). Many staff members abstained from work to avoid the adverse work environment, choosing to live in semiurban areas outside of the RRB villages. As a result, some bank branches were open for only 18 hours a week, while others closed down several times a month to "catch up" on internal paperwork. These practices were inconvenient for clients, who often took their business elsewhere.

Staff Motivation

Given the lack of basic infrastructure within bank branches, the lack of appropriate residential facilities in most villages, and perhaps most important, the money-losing business model of the RRBs, many sponsor banks assigned their junior officers—

who lacked appropriate loan underwriting or business management skills—to head the rural bank branches. In cases where senior managers were placed at the RRBs the officers' peers saw the placement as a punishment for possible inferior performance in the urban sponsor banks. It was well known by staff that since RRB assets were a very small percentage of sponsor-bank assets, and since the RRBs were ultimately loss leaders, the "parent" banks did not want to invest any significant time and money toward their maintenance or improvement.

Therefore, officers who were posted at RRBs generally had low morale to begin with. This was often reflected in their lack of willingness to be innovative and entrepreneurial, as well as in their belief that the RRBs could ultimately do little to improve the situation of the poor.

The day-to-day work requirements at the RRBs did little to boost motivation of such workers. With a plethora of reporting requirements and the redundancy of multiple forms and procedures, bank staff found themselves engaged in banal housekeeping activities most of the time. A focus on bureaucratic compliance displaced the need to make good loans, monitor their performance, and emphasize the need for timely repayment. Despite the strong focus on reporting, however, it took from three to six months for the branch mangers to identify borrowers in default (Gupta, 1998, p. 26). When defaulting borrowers were not contacted for consecutive months, they assumed that the banks did not care about collecting on the loans. This further reinforced the "culture" of loan defaults.

Finally, since RRB pay scales—which until recently were lower than those of their peers in sponsor banks—were not linked to performance, bank staff had little reason to improve efficiency or to "push hard" and collect on nonperforming loans. In fact, the unattractive compensation scale created strong incentives for corruption, which, over the years, became systemic within the RRBs.

Loan Delivery System

Inefficiencies in the loan-delivery system resulted from inflexible lending practices and high transaction costs for clients (World Bank, 1998). For example, loan products were usually long term, required balloon repayments, and were tied to specific types of investments that were assumed to have predetermined cash flows. Even applicants with good credit histories and collateral could be turned down if their requests did not "fit" the various RRB schemes. Since such schemes laid out the terms and conditions of the loan, the unique financial conditions of applicants, especially in terms of the complexities of their families' cashflows and their repayment capacity, were never a consideration in lending decisions.

In addition to inflexibility in lending, high transaction costs also created disincentives for borrowing (Kaladhar, 1997). For instance, loan applicants were required to produce a "no dues" certificate which served as proof of good credit standing, before they could receive loans. Acquiring this document often took several weeks. Also, applicants were required to submit a photograph as part of their loan proposal, but no technology to obtain a photograph existed in villages. Further, if individuals wanted to do business with an RRB outside their service area, a "no objection" certificate had to be obtained from the bank within their service area. These practices accounted in part for the long time—sometimes nearly a month—that it took for loan applicants to get approved and funded (Hunte, 1996). Finally, many prospective borrowers, especially those who were illiterate, approached middlemen to facilitate access to funds. These middlemen charged significant commissions—"fixed" transaction costs that diluted the value of the ultimate loan amounts to the borrowers.[18]

Borrowers faced transaction costs that were much higher compared to other financing sources. Indeed, it is not surprising that many rural farmers and small scale entrepreneurs, who generally value convenience as compared to the cost of credit, turned to informal sources for their credit needs (World Bank,

1998). Further, many borrowers who incurred high transaction costs may have avoided repaying loans as a way to shift some costs back to the RRBs, thus contributing to their nonviability.

Enhancing the Viability of the RRBs

Have banking reforms addressed these institutional constraints and perverse incentives in the RRB system? What additional reforms are needed to make the RRBs viable?

Key RRB Reforms

Based on the recommendations of the Narasimhan Committee Report (1992), reforms were initiated in 1993 to turn the failing RRBs around. To enhance financial viability, a new set of prudential accounting norms of income recognition, asset classification, provisioning, and capital adequacy were implemented. Banks were also required to make full provisioning for bulk of their nonperforming assets.[19] Further, they were permitted to lend to nontarget group borrowers up to 60 percent of new loans beginning in 1993–94. Permission was also granted to introduce new services, such as loans for consumer durables.

In 1994–95, a major recapitalization program was initiated to strengthen the balance sheets of failing banks. Seventy weak RRBs were relieved of their service area obligations and permitted to either relocate their loss-making branches at specified locations, such as village markets and agricultural produce centers, or to merge them with other close-by branches. Also, all RRBs were permitted to invest surplus funds in more profitable avenues, such as the money market. Further, business plans for achieving financial viability in five years were formulated in the form of performance contracts between the RRBs and NABARD. Finally, in 1997, RBI and NABARD delegated the responsibility of RRB management to their sponsor banks, although there was no change in the multiple-ownership structure.

While it was expected that these initiatives would enhance the efficiency of the financial sector, turn the failing banks around, and ultimately expand the delivery of financial services

in rural India,[20] this has not been the case. A number of studies indicate that while the reforms have introduced an enabling environment for efficient financial transactions, they have done little to increase the internal efficiency of the RRBs (Gupta, 1998; Kaladhar, 1997; Reserve Bank of India, 1997). Specifically, a two-decade administrative culture has stifled creativity and made the banks' staff "paper pushers" who became experts at handling the multiple reporting demands of regulatory bodies. A key reason for this is that the basic incentive problems facing the RRB system have not been resolved.

Getting the Incentives Right

For the 70,000 plus RRB employees, then, the new institutional arrangements triggered by the reforms probably impose yet another set of rules that require compliance. Since attaining financial viability is their new constraint, it is natural for RRB managers to take advantage of the new rules of the game and engage in activities that allow them to maximize performance with the least risks and costs.

Thus, it is not surprising that RRB managers seem to have reduced their lending to disadvantaged groups and increased their money market investments. Doing so is only rational, for a number of reasons. First, managers understand that without reduced transaction costs, incentives for repayment, and innovative loan products in place, it is difficult to expect previous borrowers, who are not accustomed to a culture of loan repayment, to change their behavior and repay new loans on time. Therefore, lending to old clients is risky. Second, although it is possible for them to make loans to nontarget group clients from outside of their "service" areas, most RRB managers find themselves lacking in credit-appraisal skills. Again, lending without analyzing the quality of the "credits" is risky.

Third, making new loans requires filling out redundant forms, screening and monitoring borrowers diligently, and pursuing collections intensively, if one is to be in compliance and maintain good asset quality. For long-time employees of a bureaucracy that has never linked remuneration to performance,

there are no incentives for RRB managers and staff to push harder, get motivated, and turn their branches around if they do not get to participate in the fruits of their increased efforts. Although RRB reforms have led to blanket salary increases, they have done little to introduce incentives for better performance. Thus, making good loans might be *personally* costly to the managers.

Under these circumstances, it is hardly surprising that the current institutional constraint of financial viability has led many managers to conclude that "the secret [to branch profitability] is not to lend; or if [one has] to lend, . . . to lend as little as possible" (Mosley, 1996, p. 257).

What should be done to make such a perverse incentive disappear? One option is to modify the current constraint that stresses the achievement of only financial sustainability and to include the volume of credit disbursed as an *additional* indicator of performance. Indeed, international experiences in rural financial intermediation indicate that monitoring progress toward both outreach *and* sustainability is critical (Yaron, 1992). This strategy in itself, however, might be ineffective. Specifically, since the RRB staff are not adept at loan appraisal, they might once again be tempted to disburse loans without due diligence to meet quantitative targets. To avoid this scenario, the provision of appropriate technical and capacity-building training will be critical for increasing the competency of the RRB staff, if this dual-constraint is to be imposed on them as a measure of performance.

While technical and managerial skills are necessary, they need to be complemented with many other institutional changes to enhance program performance. International experiences indicate that among the many conditions that facilitate success in rural financial intermediation, the provision of incentives to staff and clients is key (Rhyne & Otero, 1994; Hulme & Mosley, 1996; Yaron, Benjamin & Charitonenko, 1998). In this regard, *rewards for officials and clients must be so designed that the pursuit of what they consider their best interests*

simultaneously contributes to the attainment of the public interest, that is, the maximization of program outreach and sustainability.

Unfortunately, the RRB reform process has not given enough attention to designing institutional arrangements that can align the incentives of policy makers with those of banks' field staff and clients. Neglecting this aspect of reform can be detrimental to program viability.

The internal efficiency of the RRBs will not likely improve unless the field staff actively participate in the reform process. For example, vesting the RRB branch managers with the authority to make lending decisions and freeing the staff from redundant and time consuming reporting requirements can not only boost morale but can also serve as the foundation for making good loans and operating efficiently. In addition, not only should RRB branches have group incentives for meeting and exceeding the outreach and sustainability targets for their "profit centers," there also need to be upfront improvements in the operational infrastructure of the banks. Such actions—which can include purchase of vehicles for bank branches, facade improvements for branch buildings, construction of new storage spaces for files and loan records, and introduction of new MIS systems to facilitate data storage, retrieval and manipulation,[21]—can serve as signals of credible commitment on part of the owners (Williamson, 1995) and may go a long way in turning the RRBs around.

While rural clients will certainly notice the introduction of new banking "values," investments in physical improvements may not be sufficient to change their perceptions regarding the innate inefficiencies of the RRBs. It may be critical to provide them with information at village-level forums, regarding the new and improved business practices of the banks. In addition, offering them tangible incentives to do business with the RRBs is highly recommended. Perhaps the most important of these incentives will be the introduction of new loan products and financial services that take into consideration local conditions and unique needs.

Specifically, a key incentive will be the willingness of RRB staff to make loans for any purpose, as long as applicants can demonstrate repayment capacity based on current household cash flows.[22] Further, it will be critical to communicate a new culture of enhanced customer service by ensuring convenience and low transaction costs for clients. Also, incentives such as intensive collection strategies and interest rebates for prompt payment will encourage timely loan repayment.

In sum, the key to turning the RRBs around and placing them on a path of increasing outreach and sustainability is to devise and implement institutional arrangements that harmonize "public interest" objectives with the private incentives of bank staff and clients.

Policy Implications and Conclusions

The lackluster performance of the RRBs during the last two decades can be largely attributed to their lack of commercial orientation. Instead of adopting international best practices in microfinance (Bhatt, Painter, & Tang., 1999; Gonzalez-Vega, 1998; Rhyne & Otero, 1994; Robinson, 1996; Yaron et al., 1998), specially in terms of reducing transaction costs for clients (Bhatt, 1997; Bhatt & Tang, 1998b) and lending to individuals based on an appraisal of their ability and willingness to repay (Bhatt, 1998, 2001), these internally inefficient banks made loans based on political and social considerations that defied the very fundamentals of prudent underwriting. Given their poor portfolio performance over the past decade, the majority of these banks have been declared as financial disasters as development experts search for alternative ways to deliver rural financial services.

The unsustainability of the RRBs, has led some observers to advocate a greater role for nongovernmental organizations (NGOs) and self-help groups in rural financial intermediation. While many such entities seem to have reduced transaction costs and maintaining low loan losses (Puhazhendhi, 1995; World Bank, 1997),[23] their outreach is severely limited given

the size of India's rural market. Rough estimates suggest that the total outreach of all the NGOs engaged in rural finance is not more than 500,000 households (Mira Chatterjee, Senior Social Development Specialist, World Bank, New Delhi Regional office, personal communication march 25, 1999). Given an estimated market potential of over 50 million households, there is little chance that NGOs can meet market demand. On the other hand, the RRB system and staff, despite their challenges, have inherent strengths such as an extensive infrastructure in place for financial services delivery, an understanding of the economics of the local markets within which they operate, a reputation among many poor households for being client-friendly, and a comparative advantage in mobilizing low-cost deposits from sources that commercial banks do not adequately reach (World Bank, 1998).

It is this context that underscores the urgent need to reform the RRBs. Although the progress in liberalizing the policy framework is indeed commendable, the RRBs have a powerful incentive to minimize lending, under the current environment of reforms, especially to disadvantaged groups. In addition to the measures we have already suggested for aligning the institutional objectives of increasing outreach and sustainability with the private incentives of bank clients and staff, a number of policy-level changes are recommended.

First, the majority equity stake, preferably 100 percent ownership, of the RRBs, needs to be transferred to the sponsor banks to ensure good governance. Having a single owner is critical for clarifying channels of control, responsibility, and accountability. However, in keeping with principal-agent theory, this ownership will be ineffective unless it also gives sponsor banks free rein to operate the RRBs as real commercial entities. Second, the process of interest rate liberalization underway needs to be completed. Since interest rates for commercial banks are still controlled for loan amounts less than Rs. 200,000, many sponsor banks do not allow RRBs to raise interest rates for fear of losing business to commercial banks.

Third, administrators need to rigorously evaluate claims regarding dramatic improvements in RRB viability. Since official assessments of loan-recovery performance are based on estimates of collections over demand, and collections are getting a strong boost from the recovery of portions of overdue portfolio, it is unclear whether recovery of post-reform loans is high enough to make the RRBs viable in the long term. In order to assess accurately the quality of new lending, computation of a Current Recovery Rate (CRR) that divides total cash receipts by total amounts falling due for a given loan contract in the post-reform period is recommended (Rosenberg, 1999). Given the challenges faced by RRB accounting systems in segregating principal from interest, this computation can also allow the RRBs to produce a reasonable estimate of annual loan losses, since it does not require segregation of principal from interest for amounts received or for amounts falling due.

Finally, directed lending to economically weak groups needs to be completely phased out. Although some observers might argue that targeted credit is needed to reduce economic inequities (Velayudham & Sankaranarayanan, 1990), there is a substantial body of evidence that it is not the poor, but the better-off households, who benefit from such schemes (Mathur, 1995; Von Pischke, 1991). Very poor households often do not have the capacity to handle and repay back debt. For example, the income generated by IRDP clients is insecure and risky; borrowing often gets them deeper into debt than they were to start with. Indeed, for many of the rural poor, microfinance is not the antipoverty weapon it is often made out to be (Robinson, 1996). In many circumstances, objectives to alleviate rural poverty will likely be more effectively furthered by other types of interventions, such as public health, education, and employment generation initiatives, and of course infrastructure development programs (Jalan, 1996). These measures have the additional advantage, as compared to the IRDP, of enhancing security and reducing risk in poor communities (Joshi & Little, 1996).

But while many of our policy prescriptions may be desirable, is their implementation politically feasible? For example, would politicians support the elimination of programs that, at least theoretically, aim to assist the poorest of the poor by placing in their hands tangible assets such as cash and livestock? Would politicians back a reform proposal that recommends charging effective interest rates as high as 25 percent in order to ensure that programs can cover their costs and become financially viable?

Our answer is a qualified no. Evidence from around the world suggests that political interests almost always take precedence over the public interest in reform processes, and that without political backing, even the most well crafted reform proposals face ultimate demise. On the other hand, where political leaders can become allies, reforms can transform failing programs into models of success, as has been the case for Indonesia's BRI Unit Desas—money-losing branches of a state-owned bank that became profitable within two years of reforms (Robinson, 1998).[24] In the case of India, however, until such time as leaders feel confident that furthering the public interest is possible without political suicide (Klitgaard, 1997), proposals that seem to adversely impact either the agricultural sector, or socially/economically weak communities, are unlikely to find support. Thus, educating political leaders and winning over their support will be critical to implementing the needed reforms, and ultimately making the RRBs viable.

Notes

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1. Originally established by an ordinance in September 1975, these banks are governed by the RRB Act which was passed in 1976, and amended in 1987.

2. India is divided into 499 geographic districts.

3. The outreach of the entire formal rural financial system, which includes the RRBs, the nationalized commercial banks and the credit cooperatives—comprising of primary agricultural credit societies (PACS) and primary/state land development banks (P/SLDS)—is even more impressive, with one branch per 4,000 rural residents.

4. Average exchange rate (1999): Rupees 43.41 per US$.

5. Loan recovery was calculated as the ratio of collection over demand. Since loan losses were seldom written off due to inappropriate asset classification and rescheduling policies, official estimates of may have overstated loan losses.

6. Official accounts often do not adequately provision large uncollectible portions of the portfolio, and they include accrued interest which may never be received.

7. For instance, the Investment-Deposit Ratio jumped from 24.5 in 1997–98 to 41.59 in 1998–99.

8. For example, the CD ratio of loans made to deposits collected has declined, from over 100 percent in 1987 to less than 50 percent in 1997.

9. IRDP was launched nationwide in 1979 to enable households to cross an income-based poverty line by investing in income-generating activities. The targeting of eligible households was done by local government officials, and the RRB staff worked with them and the recipient in purchasing an asset bought with the loan. RRB staff was responsible for the collection of these concessional loans.

10. The RRB board consisted of two members from the Government of India, one member from the Reserve Bank of India, one member from NABARD, two members from the sponsor bank, and two members from the state government.

11. Often the RRBs and the rural branches of their "sponsor" banks were geographically proximate, and competed for clients. This further dampened the RRBs' relationship with the sponsor banks.

12. The legal upper limits on CRR and SLR stood at 15 percent and 40 percent. For comparison, the reserve requirement is 8 percent or less in most East Asian countries, and about 2–3 percent in most developed countries.

13. One Regional Rural Bank was designated as credit supplier to each rural locality, which was generally confined to 1–2 districts. RRBs having one district as their area of operation were allowed to open 100 branches, while those operating in more than one district could open up to 75 branches per district.

14. The prevailing school of thought in policy circles was that loans should generate an income stream from which repayments could be made—a view that ignored the complex cash flows of poor rural households.

15. When pursuing defaulters with legal action, banks can either proceed with a civil suit or approach the State Government administration for recovery under the Agricultural Credit Operations and Miscellaneous Provisions Act. Proceedings under State acts are quicker as compared to civil suits, which can drag on for years together.

16. It is interesting to note that "although more than six years have passed since the closure of the Agricultural & Rural Debt Relief Scheme, banks continue to cite it as one of the major impediments in the flow of credit and of poor recovery even in respect of current loans" (Gupta, 1998, p. 25). That many borrowers hope for future debt-forgiveness confirms North's (1990) assertion that "changing" an institution (in this case an informal one) that has assumed "deep roots" it is not easy.

17. Mosley assumed that 16.4 percent of the portfolio is written off, which is a very conservative estimate.

18. According to a World Bank (1998) study of 312 "weak" borrowers in the state of Tamil Nadu, there were leakages of Rs. 21 for every Rs. 100 of subsidy in the form of "incidental expenses" and "speed/quick or push money." About two-thirds of the sample also reporting "working" for the subsidy and producing "quick money" in addition to covering normal expenses.

19. The implementation of prudential accounting norms for 176 RRBs revealed that only 57.35 percent of their total assets were performing (Reserve Bank of India, 1997).

20. At the 1997 Microcredit Summit held in Washington, DC, the government announced that India could have a share of 25 million in the overall target of 100 million poor families to be reached by microfinance worldwide in 2005.

21. This may also facilitate timely identification of defaulting borrowers. Currently, a branch manager receives a report on "defaulter status" between three to six months after the loan has become overdue (Gupta, 1998).

22. Mosley's (1996) field studies of RRB borrowers revealed that loans used for consumption purposes resulted in higher income gains than those used strictly for investment. This was because when borrowers took care of their consumption needs, it helped build their capacity to profitably commit resources to productive investments in the future.

23. Indian microfinance NGOs have consistently recorded a loan repayment performance of over 95 percent.

24. According to Hulme and Mosley (1996, p. 154) "BRI's unit desas evolved out of a failed programme under the auspices of Indonesia's repressive military regime which has manipulated state institutions to maintain its position. They have used an element of this authoritarian political framework—the village head—to help make the programme viable." Christen (1997) too suggests that BRI "is dependent on political support for the continuation of its microfinance program" (p. 20). Of course, in addition to the political backing, the introduction of performance-based incentives for bank staff and clients played a critical role in turning the unprofitable bank branches around (Charitonenko, Patten, & Yaron, 1998; Klitgaard, 1994).

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Coordination Failure in the Rural Credit Markets

by Atul Mishra

Abstract: This paper tries to explain the curious fact that while at the national level the rural sector saves more than what it invests in itself in India, at the micro level, credit constraint is reported to be the main binding constraint on the activities in the rural economy. The explanation lies in the phenomenon of coordination failure. The public sector rural banks mobilize huge amounts of savings, but because of low rates of interest and high default rates, they do not lend in equal measure. Indeed, in India the public sector rural banks mobilize as savings three times the amount they lend as credit for investment.

Raising the rate of interest at which the rural banks lend will not only raise the savings but also the investment in the rural sector. This is because at the current low level of rate of interest the rural credit market is severaly rationed. As the rate of interest is allowed to rise more banks become viable, banks increse their lending, more people are brought into the ambit of rural banks and away from the money lender. The poor especially benefit as this increased rate of interest is still only half the rate of interest that the moneylender charges.The policy suggestion is to allow the public sector rural banks to charge economically viable and market clearing rates of interest.

Introduction

An emerging stylized fact about rural credit markets worldwide is that with the introduction of development financial institutions (DFI), not only do savings go up with an increase in the rate of interest, so does investment (Mosley and Hulme, 1996, vol. II; see different chapters for different countries). This paper attempts to explain this phenomenon. The explanation lies in the phenomenon of coordination failure in the rural credit markets.

It is well known that the spread of formal banking in rural areas has not succeeded in driving out the moneylender from the rural credit market (Mosley, 1996). Instead, moneylenders continue to thrive—partly because of the special kind of credit needs they respond to, which the formal sector does not, and partly because of the transaction cost advantages that a moneylender has in comparison to those of the formal sector bank (Eswaran & Kotwal, 1989). Were it the case that the impact of formal sector banking was merely to replace the moneylenders' business, there would have been little to recommend it; with the constant support required in the form of subsidy in the face of mounting losses, it would have been correctly looked at as a burden on the rest of the economy. However, to the extent that the rural banks have done more than merely replace the moneylenders' business, it hints at the presence of coordination failure possibilities: This is because out of the same total income, there are two or more levels of savings and investment, and state action can lift the economy to the higher equilibria. Since most of the rural banking is under the public sector, we intend to say something on this aspect of the public sector role and performance.

In what follows we first demonstrate the theoretical possibility of coordination failure in the rural credit sector. We then look at the analytics of such a possibility and derive the conditions of coordination failure in the rural credit sector. Finally we consider some innovations in the public sector's role in the rural credit sector.

Atun Mishra is a senior lecturer in Shri Ram College of Commerce, University of Delhi. After a B. A. in Economics from University of Delhi in 1985 and M. A. in Economics from Jawahar Lal Nehru University, New Delhi in 1987, he has taught in the Department of Economics at Shri Ram College of Commerce. His Ph.D. thesis, submitted in May 2001 at the University of Reading, UK is titled "The emergence of entrepreneurship in the rural non-farm economy." The thesis explores the constraints on the emergence of entrepreneurship and identifies credit constraint as the binding one.

Rural Credit: Ground Realities

Although different rural areas do differ in the credit institutions they have, we will work with the following stylized facts about rural credit:

1. The dominant player in the rural credit market is the rural bank. It mobilizes more savings from the rural sector than it disburses in it.
2. Rural banks have not been able to replace the moneylender. If anything, moneylenders are thriving.
3. Rural banks charge low rates of interest but have high transaction costs.
4. Moneylenders charge high rates of interest but have low transaction costs.
5. Rural banks have a high default ratio, whereas the moneylenders have a low default ratio.
6. Rural banks lend only for production purposes (though only a part of lent money ends up as productive), whereas moneylenders lend both for consumption as well as for production purposes.

The rural banking system in India mobilizes more savings from the rural sector than it disburses as loans in this sector (Mosley, 1996). So while the rural banks have to some extent replaced the moneylender, they have also performed an entirely new function which the moneylender was not performing—that is, savings mobilization. In principle this too can leave the situation entirely unchanged if the people who save are also the people who invest (treating the bank as a safe deposit), but to the extent that the banks, by mobilizing savings, channel investible surplus from net savers to net borrowers, they perform a heretofore unperformed activity—and therein lies another possible source of coordination failure.

However, most rural banks suffer from a very high rate of default in loan repayment, which has caused most of these banks to go in the red; sometimes their default rate is so high that their entire net worth has been wiped off (Mosley, 1996). Yet none of these banks have been shut down as they continue to mobilize

impressive amounts of savings. Thus, while on the one hand they continue to lose sometimes up to 85% of their advances in defaults, they also continue to mobilize substantial amounts of savings. This situation would not have been possible without the state standing behind them to write off all bad debt and continue to subsidize rural credit. If these banks had to depend for their viability entirely on their deposits and profitable advances, most of them would have long since gone under—or else they would have had to take on some of the features of the more successful rural banks, that is, higher rate of interest, higher administration expenditure on collection, higher incentive for repayment, etc. That they continue to exist with continuous loss-making subsidized credit advances opens up another possibility of coordination failure

What Is a Coordination Failure?

Coordination failures are situations in which agents fail to coordinate their decisions to arrive at a mutually beneficial state of affairs. This failure to coordinate occurs because under the current state of affairs, no individual agent has the incentive to make a decision that would bring all of them to a better state of affairs. On the other hand, if all of them made the decision simultaneously, a better state of affairs would result. Thus in a given situation, "while the rate of return to coordinated investment may be extremely high, the rate of return to individual investment may be low" (Rodrik, 1995, p. 78). At a given level of capital stock it may not be meaningful to talk about marginal productivity of capital, since the marginal productivity of capital at a certain level of stock now has a range of values that depends on the level of coordination in the rest of the economy. Instead of working with a continuum of coordination possibilities, we will think of a discrete number of coordination possibilities.

The classic case of coordination failure was that of demand externality. Underdeveloped countries are underdeveloped because of small markets for goods, so no single sector can

expand their output. However, if all sectors expanded output simultaneously, they would create demand for each other and thus make viable the higher level of output in all sectors. The fact that the economy could simultaneously sustain more than one equilibria, that they could be ranked, and that when the economy is trapped in the low equilibrium, no agent independently has the incentive to move to the higher equilibrium, whereas a coordinated movement would lift the economy to the higher equilibria—all characterize the existence of coordination failure.

Discussion

The low rates of interest charged by rural banks results in excess demand, and because the rates of interest are fixed, into rationing (Braverman & Guasch, 1989). Since only relatively rich people can provide the collateral, the poor are rationed out. People whose loan demand is not satisfied then turn to the moneylender, whose rate of interest further rises in response to this excess demand.

Thus we have two rates of interest in the rural sector: r charged by the bank, and R charged by the moneylender (R is greater than r). This means that there is a whole range of economic opportunities which promise an expected rate of return between r and R and which are not undertaken for lack of funds.

The rural bank suffers from three problems in its lending activity: it may choose wrong projects to fund because of inadequate information (adverse selection), its employees may cheat the bank by deliberately choosing wrong projects (moral hazard) for private gain, or employees may not have enough incentive to enforce repayment.

It is important to realize that the fact that the rural bank has a high default rate is not just a matter of public sector inefficiency. A private sector monopoly would also suffer from similar defaults even if it covered costs by charging higher interest. So merely allowing the rural bank to charge a higher rate of interest may allow it to cover costs, but it will

leave the essential problem of information asymmetry unaddressed and thus leave the inefficiency aspects unresolved.

Hypothesis: We claim that the fact that rural banks mobilize an amount of savings that is more than what it disburses, combined with the general shortage of credit availability (as seen when private moneylenders not only charge a higher rate of interest but also have a low level of default), suggests the presence of coordination failure. Suitable policy design can lead to a higher share of rural savings going to rural investment.

It must be pointed out that this coordination failure is not policy-induced. In the absence of government intervention, the equilibrium is unique to low savings and low investment.

Analysis

In Figures 1 and 2 we show the time profile of the formal and informal sector credit availability. We see that what is true at one point of time is not true over a period of time. Consider first Figure 1. Here the interest rate in the formal sector is set at less than the break-even rate; i.e., the formal sector banking is subsidized. While it may be advantageous to the rural sector in the short run, we see that the loan availability itself goes down over the long run because the system is not generating surplus. And as the formal sector loan availability goes down, the availability goes up in the informal sector because of the surplus generated in the sector. On the other hand, in Figure 2 the formal sector interest rate is set at or above the break-even rate. Here we see that in the short run, while the rural sector has to bear a higher rate of interest, in the long run this makes for a higher loan availability in the rural sector. Thus subsidy, if not supported from the outside, does not automatically benefit the target group. In the current scenario of economic reforms and fiscal austerity, where all sorts of subsidies are being pruned (in the annual budget of the Government of India in 1997–98, the subsidy was sought to be brought down by half), it is important to recognize these facts.

In Figure 3a and Figure 3b we show the same phenomenon in terms of its impact not on the volume of loan availability but on the rate of interest. Consider first Figure 3a. The formal sector supply curve is perfectly elastic at the rate of interest r_0, which is less than the break-even rate and also the market clearing equilibrium rate. The corresponding situation in the informal sector (Figure 3b) shows a comparatively inelastic supply curve intersecting the demand curve at a higher rate of interest. In Figure 4a we begin in the formal sector with the surplus generating rate of interest r_3. This, over time, shifts the supply curve to the right, and the market clearing rate of interest keeps on falling. The corresponding story in the informal sector (Figure 4b) is that as loan availability increases in the formal sector, fewer and fewer people are required to resort to the informal sector, so that the demand curve keeps on shifting leftwards and downwards because of which the rate of interest in the informal sector keeps on falling. In Figures 5a, 5b, and 5c we bring the insights of the above two to generate the possibility of coordination failure.

In Figure 5a the backward bending curve shows that the investment in the formal sector first increases with the rate of interest and then declines. This is because as the formal sector rate of interest rises, loan availability increases; and as the shorter side of the market rules in disequilibrium (i.e., the formal sector has excess demand at the going rate of interest) total investment made out of borrowings from the formal sector increases. But this happens only up to a point, after which the higher rate of interest compares poorly with the expected rate of return and the investment demand goes down. Figure 5b has the same investment curve as in Figure 5a but it has a savings curve imposed on it. The savings curve completely overlaps the investment curve up to the point at which the investment curve starts bending backwards. This is because up to this point, the savings-investment market was in disequilibrium, and the law of the shorter side ruling meant that equality would hold.

But after a point, while savings continue to rise with the rate of interest, investment does not. Finally in Figure 5c we show that in a situation in which both the investment and savings curves are upward sloping, this could generate multiple equilibria and thus possibilities of coordination failure. In the next section we see what policy measures this might call for.

Let us now introduce another source of coordination failure, that of moral hazard originating in imperfect information.

In the rural credit market the nature of coordination failure is as follows: From the same total amount of savings mobilized, two different levels of economic activity become feasible: one in which most of the loan is dispersed by the formal sector, which has very poor access to information and thus works with poor screening, monitoring, and enforcement, and most of the loan (as much as 85%) ends up in bad debt; and another, in which

most of the loan is routed through private agents with excellent local information, who charge higher rates of interest to procure this information, and the level of default is low. (Indeed, this fact has recently been recognized in a policy paper of the Reserve Bank of India, which has asked the rural banks to give loans to self-help groups.) The fact that from the same level of aggregate rural savings we can generate two different levels of entrepreneurship suggests the presence of coordination failure possibilities. The basis of this coordination failure is in the imperfect-information nature of rural credit market—procuring information and transacting in small amounts is costly, and higher rates of interest are required to cover this cost.

Thus if from the same level of aggregate savings we can generate two different equilibria of rate of interest, we would have demonstrated another example of coordination failure. Consider now Figure 6, which shows comparison of capabilities in savings mobilization and productive investment between the public sector rural bank and the moneylender (in this generic term we include other private agents, such as traders, etc.).

I \ S	Rural Bank	Moneylender
Rural Bank	I High Savings Poor Quality Investment	II Poor Savings Poor Quality Investment
Moneylender	III High Savings High Quality Investment	IV Poor Savings High Quality Investment

Figure 6. A comparison of saving and investment capabilities of banks and moneylenders. While banks are good in saving mobilization, the moneylenders are not. The opposite is true in investment.

Box I shows a situation in which both the savings mobilization as well as investment decision are made by the rural bank. We claim that this will result in high savings but poor quality of investment, for the above-mentioned reasons. Box II shows savings mobilization through the moneylender and investment decision by the bank. This is the worst-case scenario, in which both the activities are performed at the low level. This is because moneylenders are poor mobilizers of savings, and banks are poor at determining the productivity of loans. Box III is the best of all possible worlds: where banks mobilize savings and lend them for investment through some private route, such as agents. (This system is already in use in Indonesia. There, moneylenders have been co-opted into the microfinance program. Thus banks give loans to moneylenders, who pass them on to the end users. The moneylenders charge a higher rate of interest than what they pay to the bank, but they also absorb all risk of default (see Mosley & Hulme, 1996, vol. I, p. 74). Finally, in Box IV, moneylenders mobilize savings as well as decide on investment; this gives a low rate of savings mobilization and a high productivity of investment. The Indian rural credit market exists in part in Box I and in part in Box IV. The desired change is in the direction of Box III: already some distance has been travelled in that direction as the banks have started giving loans to self-help groups, with joint liability for repayment and excellent results. Reserve Bank of India estimates that the repayment rate among these self-help groups is close to 100%.

Empirical Evidence

The evidence of the claim that at higher rates of interest, both savings and investments go up comes from diverse countries. In almost all countries, with the coming into prominence of microfinance institutions, the rate of interest charged on loans by the nonmoneylender agencies has gone up, and so has the level of savings and investment.

At a theoretical level, evidence that with the arrival of MFIs, both savings and investment go up at a higher rate of interest is trivial. Since these institutions are surviving, are mobilizing savings, and are giving credit, they are increasing the volume of investment taking place in the rural sector. However, both with regard to net investment and with regard to average rate of interest (which takes into account the change in the rate of interest of the moneylenders, with the arrival of the MFIs), one has to take into account what is happening in other parts of the rural financial sector. As for net investment, the productive investment component of MFI's credit does not substitute for the moneylender's loan, since moneylenders' loans are mostly for consumption purposes. Can we still claim that with the arrival of MFIs the average rate of interest has gone up? Though there is evidence to the contrary (the moneylenders reduce their rate of interest with the coming of the MFIs; see Mosley & Hulme, 1996, vol.II, p. 23), we compare that rate of interest which is relevant to productive investment. Here, the only relevant rate of interest to compare with is the bank rate of interest, since banks are the only alternative source of finance for investment expenditures in the rural sector. Since rural banks have not lowered the rate of interest at which they lend, the average rate of interest for loans for investment purposes has unambiguously gone up.

> Since 1983 the Indonesian government has allowed, and Indonesian financial institutions have taken advantage of, freedom to set their own interest rates. . . . In the BKK and the KURK systems there are a variety of loan models, . . . and the nominal monthly interest rates from 2 percent to 4.8 percent. . . . The effective rates resulting from the variegated menu offered by the BKKs and KURKs range from 26 percent to 130 percent. . . . All the institutions studied here have charged highly positive rates of interest. (Mosley & Hulme, 1996, vol. II, p. 41)

In Indonesia, "real interest rates on normal savings deposits increased from 5.26% in 1982 to 10.7% in 1985, and nationally savings deposits more than tripled over those same three years "(Mosley & Hulme, 1996, vol. II, p. 34).

"The BRI voluntary savings schemes have succeeded beyond all expectations, and as of December 1993 they have just over 7 million savers and have accumulated Rp. 957 billion in client savings" (Mosley & Hulme, 1996, vol. II, p. 43).

During the same period, loans for investment increased from an average of $199 in 1986 to $625 in 1992 (Mosley & Hulme, 1996, vol. II, p. 48).

In the case of PRODEM/BancoSol, the number of new borrowers increased from 1737 in 1987 to 15,300 in 1994, just as the average loan size increased from $92 to $361 (Mosley & Hulme, 1996, vol. II, p. 7) The amount disbursed increased from $462,000 in 1987 to $24.7 million in 1993. During the same period, the value of savings increased from zero in 1987 to over $3 million in 1994. All this took place at an annual rate of interest of 60% per year (Mosley & Hulme, 1996, vol. II, p. 5).

In Sri Lanka, with the formation of thrift and credit cooperatives, total deposits increased from $5.5 million in 1981 to $13.5 million in 1992, just as total loans disbursed increased from $3.3 million in 1981 to $5.5 million in 1992. SANASA's savings mobilized went up from Rs. 418 million in 1989 to Rs. 696.8 million in 1992, whereas its advances went up from Rs. 416 million in 1989 to Rs. 715 million in 1992 (Mosley and Hulme, 1996, vol. II, p. 228). During the same period, SANASA's (1992) rate of interest ranged between 20% and 80% per year.

Policy

The solution to the problem of credit constraints in rural activities lies not in greater resource mobilization but in innovation in institutional design, since the problem lies in the delivery of credit rather than in the size of aggregate savings. We have already identified the institution as the self-help group, an

association of poor people who save and borrow collectively; peer monitoring ensures a high rate of repayment of loan. In Figure 7 as we replace money lenders with self help groups, we move to Box III where savings are mobilized by the bank but the investment decision is made by the self help group. This results both in high savings and high quality investment.

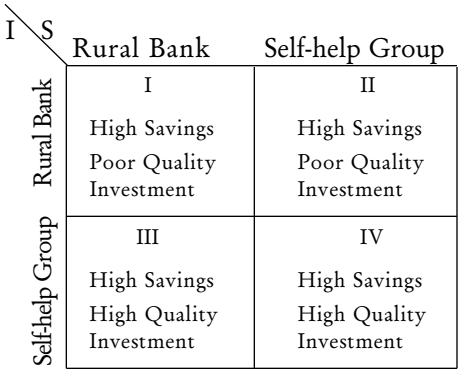

Figure 7. Policy innovation replaces moneylender with self-help groups. This is a Pareto improvement over the earlier situation since we now have both high savings and more productive investment.

What is clear at the outset is that withdrawal from rural banking because of losses incurred is undesirable. This is because even if there were no defaults, the break-even rate of interest would still have to be twice the rate currently charged. Thus the losses were, so to speak, planned losses. Indeed, the coordination failure possibilities in the rural credit market arise precisely because of the existence of public-sector rural banking. If there were no public-sector rural banks (PSRB), and the field were left entirely to moneylenders, there would be no coordination failure: this is because in the absence of a financial intermediary (no private-sector bank wishes to open branches in the rural sector, as is evidenced by records before bank nationalization), savings would not be mobilized from the public (the moneylenders do not have the authority to mobilize

savings, and in any case they lack credibility), and we are locked into the low equilibrium, where the moneylender lends from his own savings. The amount lent and borrowed would be very small and at a very high rate of interest. This would be a unique equilibrium, and the economy would be trapped in it, since there would be nowhere else to go. However, with the presence of the public sector rural banks (PSRB), the whole situation changes. This is precisely because of the ability of the public sector banks to mobilize savings. Even loss-making public sector banks thus open possibilities of multiple equilibria. The aim of rural banking should be to maximize this saving mobilization and channel it to the most productive investment in the rural sector over the long run. This means that the rate of interest chosen should be the surplus-generating rate of interest, and in the limiting case, even the market-clearing equilibrium rate of interest. However, the rate of interest is not the only instrument available with the bank. The other instruments are

- Increased expenditure on loan collection
- Increased incentive on loan repayment
- Increased disincentive on default, in the form of lending to groups that have peer monitoring

All these will lead to the attainments of the higher equilibrium and provide for a higher rate of investment in the rural sector.

What is the coordination task of the state? The task required is precisely to mobilize the savings and channel it to productive investment. This leads the economy to a higher-level equilibrium, compared to the situation in which the state does not intervene. This intervention need not generate loss. Note, however, that even if the system generates loss, so long as it generates an amount of savings from the rural sector that is greater than what it lends to the rural sector, it may even be worthwhile to maintain the loss-making banking system: this would depend on how the loss generated on the mobilization of

the marginal rupee of savings compares with the productivity of the marginal rupee in the rural or urban sector.

Conclusion

We have seen that the presence of subsidized credit by the public sector banks in the rural credit market creates a possibility of multiple equilibria with respect to the rate of interest. This means that when the public-sector rural banks charge low rate of interest on their loans, they create conditions of excess demand and thus of rationing. Charging a market-clearing (as well as surplus-generating) rate of interest results in a rise in both the savings and the investment levels in the rural sector, as evidenced by numerous examples. Further, the higher rate of interest charged by the public sector rural bank is still much lower than what the moneylenders would charge the rationed out loanees in the rural sector.

Notes

Numerous studies (e.g., Mosley, P. & Hulme, D. (1996) ibid. Vol II Tables 12.13 and 13.7) show that the economically viable rate of interest in the Indian public-sector rural banks is between 24% and 36% per annum. While this is more than double the current rate of interest at 14% per annum, it is considerably less than 5% per month that the moneylenders usually charge. At a simple rate of interest, it turns out to be 60% per year.

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How To Reduce Arrears In Microfinance Institutions

by Dan Norell

Abstract: Reducing arrears is crucial if MFIs are to achieve self-sufficiency. MFI staff must understand the causes of arrears—whether from clients' testing the MFI's determination to collect, crises in clients' lives, loans that are too large, or loans given on the basis of favoritism. Analytical tools for assessing and preventing arrears include key measures for analyzing arrears (e.g., portfolio quality ratios and performance ratios by credit officer) and financial ratio tests for determining appropriate loan size. The key to reducing arrears is to follow up late loans quickly, form strong solidarity groups, update and enforce credit policies, focus credit officers' services in a specific geographic scope, not lend to start-up businesses, and provide financial incentives for credit officers. In critical arrears situations, MFIs should suspend lending to new clients until portfolio quality improves, as well as ascertain clients' ability and willingness to repay in order to design appropriate strategies to pursue.

Introduction

A key to achieving scale and operational and financial self-sufficiency is to reduce the percentage of loans in arrears. To maintain good portfolio quality, microfinance professionals must understand (1) what causes arrears and (2) how arrears can be reduced. This paper addresses these two elements.

Causes of Arrears

Delinquent loans are loans that have been written off by a microfinance institution (MFI). Arrears are defined as late loans, and they can increase in MFIs for several reasons. Common reasons are explained below.

- Microentrepreneurs often test the MFI to see if it is serious about collecting loan payments. They may know the MFI is a nonprofit organization funded by overseas donors, meaning that MFI staff are not responsible to shareholders to make a profit.
- Clients' lives are often full of unpredictable crises, such as illness or death in the family. They are called on to provide for the extended family and are seen as disloyal to them if they refuse. They feel compelled to provide financial help, even if the funds are borrowed from the MFI.
- If loans are too large for the cash needs of the business, extra funds may go toward personal use. When the loan needs to be repaid, the client cannot pay back the loan without decapitalizing the business. In other words, the client has to use the net equity of the business to pay back the loan. World Vision's Georgia Credit Fund cites the use of the loan for personal uses as a key factor in the success or failure of a loan.
- If loans are given on the basis of favoritism, clients may attempt to delay payment or default. They often hope that their friend on the MFI staff will encourage the organization to write off the loan rather than take the clients to court or seize their property. This can be a problem with small business loans. Often, the larger the loan size, the greater the incentive for friends of credit officers to receive these loans.

Dan Norell is Team Leader of the Development Resources Team for the U.S. office of World Vision. In the microfinance sector, he provides technical assistance and training to MFIs, provides input on the development of microfinance guidelines and standards, represents World Vision in professional associations, and assists in fundraising with public and private donors.

Analytical Tools for Assessing and Preventing Arrears

Key Measures for Analyzing Arrears

To reduce arrears, an aging analysis should be done monthly, because it is the only way for management and the board of directors to know the portfolio's health. If done regularly, a problem's seriousness can be reinforced with each report and discussed by management and the board. Key measures for analyzing the arrears situation are described below.

Portfolio at Risk (over one day late). The ratio of risk equals the value of outstanding balance of loans over one day late divided by the value of loans outstanding. The Portfolio at Risk (over one day late) ratio is an early warning device, indicating a lack of financial discipline in the system. An accountant from a World Vision–affiliated MFI did not register partial payments as late, wanting to keep the ratio looking good and not penalize clients who were making an effort to repay. When the MFI installed a computerized loan-tracking system, it was not as charitable as the accountant. Partial payments were registered as late, incurred a late-payment charge, and were put in the Portfolio at Risk (over one day) statistics. This showed management that clients were not paying because they were not held accountable, and this contributed to a major arrears problem.

In some ways, loans that are one to thirty days late can be compared to the common cold. Although it's not a serious problem initially, it can worsen into pneumonia. Quick action by MFI credit officers and management is needed. Because clients often know one another, late payments can become infectious and spread into widespread delinquency. The industry standard for Portfolio at Risk (over one day late) is below 10 percent.

Portfolio at Risk (over thirty days late). This ratio equals the value of outstanding balances of loans late more than thirty days divided by the value of loans outstanding. It is the key

arrears measure because it means the borrower has awakened thirty mornings and chosen not to repay the MFI, so the probability of nonpayment continuing is high. The credit officer and MFI must take some action or stand losing the entire loan. Hence the name *Portfolio at Risk*. According to one writer (Rosenberg, 1999, p. 14) for the Consultative Group for the Poorest (CGAP):

> This measure discriminates between loans where a payment is just barely late and much riskier loans that have been overdue a long time. It distinguishes a late payment that represents the last installment of a 24-month loan from one that represents the first. It gives proper relative weight to small and large loans, short- and long-term loans. Managers who receive a daily or weekly aged Portfolio at Risk (PAR) report can quickly pick out loans that need to be pursued aggressively, while keeping a finger on the pulse of overall portfolio quality. No one indicator meets all needs or all situations, but an aged PAR is generally the single most useful indicator. Almost all MFIs should produce and use such a report.

The industry standard for the Portfolio at Risk (over thirty days late) is less than 5 percent. At a higher rate, the MFI risks losing the entire loan balance.

Principal Payments in Arrears (over one day late). This ratio is calculated by dividing the value of principal payments in arrears by the value of loans outstanding, very similar to the Portfolio at Risk (over one day late). The only difference is that the numerator has the value of principal payments in arrears rather than the value of outstanding balances of loans in arrears. Many practitioners prefer the Portfolio at Risk to the Principal Payments in Arrears because it measures the entire amount the MFI stands to lose, not just missed principal payments. The World Vision U.S. standard for this measurement is 8 percent. Because the value of late principal payments

is divided against the entire value of loans outstanding, the measure needs to be lower than the Portfolio at Risk (over one day late) measurement. The Portfolio at Risk (over one day late) measurement is calculated by using the entire value of the outstanding balances of loans in arrears.

Principal Payments in Arrears (over thirty days late). This ratio equals the value of payments in arrears (over thirty days late) divided by the value of loans outstanding. There is no clear industry standard for this measurement, but World Vision U.S. uses a standard of less than 4 percent.

Repayment Rate. This ratio is calculated as the amount paid (minus any prepayments) divided by the sum of the amounts due plus the amounts past due.This ratio has fallen out of favor among microfinance practitioners because it hides a looming arrears problem. Often prepayments are not subtracted, so the good works of prepayers cover up late payments of those in arrears. The industry standard is 95 percent.

Financial Ratios by Credit Officer. While it is helpful to management to know the health of the MFI's loan portfolio, the credit officers and their supervisor should list each financial ratio by credit officer. The credit officer and supervisor can then take steps to reduce each credit officer's arrears rate.

Tests for Determining Appropriate Loan Size

It is critical that the loan size be appropriate for the size of the business. This paper argues that MFIs should ascertain the repayment capacity of clients' businesses by collecting data on sales and assets. It could be maintained that loans should be given solely on the basis of character, since microcredit is often called "character-based lending," but loans create debt for the client. A Mennonite Economic Development Associates (MEDA) program once gave a loan for a chicken business to a pastor—a man of impeccable character. However, because the pastor was not a good financial manager, he was saddled with a very large debt that he could not repay.

MFI staff can use financial ratios to determine appropriate loan size. Several of these financial ratios will be discussed.

However, not all the financial ratios discussed are required to determine the loan size, especially for solidarity groups. The first two (Debt-Equity Ratio and Repayment Capacity) are the most important for solidarity group and community banking loans. These ratios require that the community bank or loan officer collect sales, assets, and liabilities information from each client. This information is important to collect because if the MFI is lowering sales or decreasing a client's net worth, then the loan may be harming rather than helping the client.

Debt-Equity Ratio. This ratio is the key determinant of the loan size a client should receive. The Debt-Equity Ratio equals the sum of existing liabilities and the loan amount divided by the net equity, where net equity equals assets minus liabilities. MEDA usually has 0.50 as the maximum debt-equity ratio allowable for a loan. This means that if the business has a net equity after liabilities of $1,000, the maximum size loan with no other existing liabilities is (0.50)($1,000), or $500. In special cases, the debt-equity ratio may exceed 0.50, but it should never be more than 0.75. These special cases include the following:

- The business has net equity that is less than $500.
- The client wants to purchase a fixed asset at a fixed price.
- The client has a contract for the goods to be produced.
- The client has customer advances that inflate the debt owed.
- The client has an excellent repayment history.

It is very easy to give a loan that is too large. Care should be exercised so that the client and the MFI are not exposed to too much risk. Some credit officers may argue that clients have too few assets to be included as equity. One credit officer in the World Vision Azerbaijan Microfinance Program, who lent to Internally Displaced Persons, challenged the ratio. He felt that the sales and profit potential for selling goods such as leather jackets was greater than reflected in the debt-equity ratio. While this assertion may be correct, the risk for the MFI increases with increases in the leverage of the debt to equity.

Repayment Capacity. This ratio is second most important in determining loan size. It compares the client's average monthly

payment (principal and interest) to the business's current monthly sales. The average payment should not exceed 8 percent of monthly sales.

The repayment capacity ratio equals the average monthly payment, divided by current monthly sales. Use of this ratio prevents overburdening the client with difficult payments. The MFI should use the current monthly sales figure and avoid overly optimistic growth projections. One Georgian Credit Fund credit officer felt that an 8 percent limit was too liberal because profits in Eastern Europe ran at about 7–11 percent of sales. If 8 percent of sales were used to repay the MFI, the entrepreneurs would not have any additional profits left to reinvest in the business; instead, they would just be working for the MFI with no benefit to their business or families. With the individual lending program, the Georgia Credit Fund sets a maximum of 15 percent of profits to be used for principal and interest, so it intends to set the initial repayment capacity ratio at a maximum of 2 percent of sales.

Loan Collateral. Loans may be secured by individual guarantors or, in the case of groups, other group members. In the past, the MEDA program in Nicaragua, CHISPA, required that each member of the solidarity group pledge collateral to the group. In case of individual defaulting, other group members can pay the individual's part of the late principal, interest, and penalty payments and take the property that was pledged in collateral. These pledges are written down and signed; the group leader and the MFI each keep one copy. (Currently, CHISPA has been converted to a registered bank whose focus is individual lending rather than solidarity group lending.) The loan collateral ratio equals the estimated value of collateral divided by the loan amount.

Some organizations believe that the collateral pledged should be at least twice the loan amount. For example, $400 must be pledged to qualify for a loan of $200. Other MFIs only require 100 percent or 125 percent. The more collateral that is pledged, the lower the risk to the MFI. World Vision generally

requires 100 percent of the loan in collateral and recommends a loan collateral ratio of 2.

Increase in Owners' Equity. Another evaluation measure is the increase in net owners' equity during the last loan cycle compared to the increase in loan size. This may seem logical, given the .50 limit to the debt-equity ratio, but it bears repeating. It is easy to allow the loan size to get too big, especially on repeat loans. If the MFI requires the net owners' equity to grow proportionally to the loan increase, the debt equity ratio should not change. For example, if in the first loan the debt-equity ratio of existing liabilities of $500 plus the loan amount $500 divided by the net equity of $2000 equals .50, then a second loan of $600 should be balanced with at least $2,200 in net equity—a $200 increase—so that the debt-equity ratio remains the same: the existing liabilities of $500 plus the loan amount $600 divided by the net equity of $2,200 still equals .50.

Character and Integrity. Character and integrity tests are as important as financial tests, since microfinance is often called *character-based lending*. In Zimbabwe, Dunn & Bradstreet lists individuals who have been taken to court for bad debts. With group lending, each group member should be well known to each other group member, for each signs individually to guarantee the entire group's loan. With individual lending, guarantors often guarantee the loan, and they should vouch for the character of the client. They need to know that if clients do not repay their loans, the MFI will take the guarantor to court to collect on the loan.

Reducing Arrears

Preventing or Reducing Arrears

MFIs can take a number of actions to reduce arrears. To begin with, quick follow-up visits right after a missed payment are key to reducing arrears. One credit officer in a MEDA-affiliated MFI in Nicaragua has an almost zero percent arrears rate. He checks each day before the close of business for his clients

who did not pay that day. After office hours or early the next day, he visits the client to inquire about the missed payment. If the late client is visited the first day after the repayment is missed, the credit officer comes as a friend and can warn of the consequences of late payment, including legal action the MFI takes as a matter of policy. However, a credit officer who comes a week or more later may be perceived as a police officer for the MFI. The credit officer should clearly communicate that the MFI will take action, but should not overplay his or her hand and upset the client. The client could then say, "Fine, I will see you in court. Until then, I will not cooperate at all."

For group loans, regular visits to the home and business of the chairperson are important. One main reason MFIs use group-lending methods is to lower transaction costs. If the follow-up for late group loans is done on an individual basis for individual businesses, the cost savings are lost. Unfortunately, it is often the chairperson or another leader who has misused the money. To reduce the risk of this, the roles and responsibilities of the chair and other leaders need to be clear in the training and home visits. The chairs need to know that the first stop in case of arrears will be their house or business. Any MFI-initiated court action will target the assets of the chairperson first.

The formation of strong solidarity groups is also key to preventing high arrears. The training and formation stage often covers several sessions. Group members must clearly understand their roles and responsibilities and fully grasp that they are individually signing for the loans of each group member. MEDA's affiliate in Nicaragua states several key group principles in its Solidarity Group Credit Policies and Procedures (1997):

- Groups of four to six individuals (preferably five) select each other based on trust and knowledge of each other's business and character. They operate their businesses and preferably live in the same area. Ideally, their businesses are the same size and have the same credit needs and debt capacity.

- Each group uses the loan for the purpose specified in the loan application.
- Each member of the group participates in all training activities.
- Each group selects a group leader who is responsible to collect and submit payments each week, liaison with the credit officer, and initiate and maintain group peer pressure.
- Each group member agrees to guarantee the loans of others in the group. If one member fails to pay, other group members are responsible to make the payment.
- Senior management should regularly review lending policies and procedures. The credit supervisor should check with credit officers daily to ensure that policies are followed. It makes no sense to have strong policies on paper that are not followed in the field.

Next, if credit officers have a specific geographic region, they can visit clients more often; limiting geographic scope reduces time and money wasted traveling from the office to clients' businesses. More visits enable credit officers to develop relationships in their neighborhoods.

Another benefit of assigning credit officers specific geographic regions is that the impact of increasing clients' incomes can, in turn, have an impact on the neighborhood. If many clients live in one neighborhood, visible signs of development can be seen: greater economic activity; more interest in schools, churches, and community institutions; and higher levels of school attendance by children of microentrepreneurs. On the other hand, if the MFI's benefits are spread over an entire metropolitan area, the multiplier effect of higher incomes will be diluted. World Vision has found this synergistic effect in other programming. As a consequence, World Vision programming now focuses on specific areas called *Area Development Programs* (ADPs), which may include credit, savings, health, well-drilling, education, and other services.[1]

Another strategy for reducing arrears is to loan only to microentrepreneurs who have been in business at least twelve months. Businesses are most likely to fail within the first year

of operation. If they have existed for at least twelve months on the owner's money, the infusion of money from the MFI should be a lower risk than if the business is a start-up. Some MFIs use six months as a minimum, others three. The lower the number of months, the higher the risk for the MFI. This measure cannot always be applied, e.g., when working with Internally Displaced Persons (IDPs, persons displaced by civil conflict), who will not usually have an existing business.

Since many of these businesses are start-ups, it pays to be conservative in loan size. Some Georgia Credit Fund credit officers maintain that in a transitional economy like the Republic of Georgia, year-old businesses were more likely to fail than those that were three months old because they were more likely to face significant changes in the economic environment. For example, small bakeries were struggling because the government allowed only large bakeries to sell on the street. A new entrepreneur would not open a bakery because of new competition from large bakeries, but an entrepreneur who opened such a bakery one year ago would be stuck trying to make the best of a difficult situation. A new business may be less likely to fail than an older one in a dynamic economy.

Yet another way to reduce arrears is to require the credit officer to visit the client and the client to receive training prior to the transaction of each loan. It is easy for MFIs to assume that a client or group should get larger loans after each loan cycle, assuming that clients will repay new loans on time if they have repaid past loans on time. However, it is often on the second and third loans that clients fall behind, perhaps because the loan size has grown too big or because the client has begun to take the MFI for granted. The MFI should apply the same rigorous financial and character tests to both new and repeat loans. Only by treating each loan as new can the loan sizes be calibrated each time, on the basis of actual financial data.

Finally, financial incentives can be used to lower the arrears rates for individual credit officers. One MEDA partner in

Zimbabwe, Phakama (Arise) Economic Development Company, developed the following incentives for credit officers:

- 5% of salary if 95% of target portfolio is maintained in the month.
- 10% of salary if the arrears rate is not more than 10%.
- 20% of salary if the arrears rate is not more than 5%.
- 30% of salary if the arrears rate is not more than 2%.

Katherine Stearns writes about credit officer incentive plans in *The Hidden Beast: Delinquency in Microenterprise Credit Programs* (p. 51):

> Another strategy that has proven quite effective in finding solutions is to design an incentive system for the loan officers that includes on-time payments as an important variable. If well designed, the system can motivate advisers to look for and eliminate the causes of arrears, as well as to meet other program objectives. An evaluation of the ADEMI program in the Dominican Republic concluded that one of the most important factors contributing to the decrease in arrears (payments past due more than 1 day/portfolio) from 25 percent in 1986 to 10 percent in 1988 was the incentive system implemented for the advisers in which they receive monthly bonuses depending upon the performance of their portfolios.

The above measures are important for preventing or reducing arrears. Sometimes an arrears problem is so serious, however, that the MFI's management needs to take more drastic action.

Reducing Arrears in a Critical Situation

If the arrears rate has risen to such an extent that it threatens the life of the MFI, management must take serious measures. Several that MFIs have used are described below.

Suspending lending to new clients until the Portfolio at Risk (over one day) ratio falls to below 10 percent would send a clear message that arrears are taken seriously by the MFI's management and the board of directors. In school, a student

may not advance to the next grade until mastering a certain level. Likewise, an MFI should not be allowed to access more lending capital until a certain level of proficiency is achieved. It is suggested that a Portfolio at Risk (over one day) ratio of less than 10 percent, a Portfolio at Risk (over thirty days) ratio of less than 5 percent, and a Principal Payments in Arrears (over one day) ratio of less than 8 percent serve as such minimal passing grades. A funder could limit any new loan funds until these measures are met, thus limiting uncontrolled growth. Credit officers would be more careful with client selection. In one World Vision–established MFI, the credit officers in one branch worked hard to exceed loan disbursement quotas, but portfolio quality was poor. The MFI's branch office was threatened with closing down unless it improved the portfolio quality.

It is much easier for MFIs to find new clients than to get money back from clients in arrears, but credit officers must focus on the latter. By focusing on poor loan decisions, credit officers and the entire MFI can learn from mistakes. The risk of limiting loans until the Portfolio at Risk (over one day) rate meets certain targets is that portfolio growth could stagnate, which could discourage credit officers. In fact, arrears may increase because the portfolio (denominator in the statistics) is dwindling. The MFI managers will need to balance the follow-up on the collection of late loans with the review of some new loans.

If the two Portfolio at Risk rates are very large, the MFI should also consider establishing a special incentive program for credit officers to collect very late loans. If it is part of a time-fixed recovery program, the institution could pay 5 percent of payments received from late payers. An alternative is to give an equal share of the incentive payment received to each credit officer.

For very late loans (group loans over five weeks without a payment, individual loans at sixty days without a payment), credit officers should visit each late payer. The credit officer

should classify the client into one of the four following categories: (1) willing and able to repay, (2) willing but unable to repay, (3) unwilling but able to repay, and (4) unwilling and unable to repay.

With the institution's management, the following courses of action could be considered.

Willing and Able to Repay. Management could allow credit officers to receive payment, even partial payment, at the client's business or home. The Georgia Credit Fund implemented this alternative by having the credit officer and the supervisor visit the client's business.

Willing but Unable to Repay. Rescheduling should be considered for clients with a very good excuse. This means that the principal, interest due, and penalty due are added up as the starting balance on a new loan, for which the client signs a new loan contract. Rescheduling can, however, hide a problem that can resurface in a worse condition, even encouraging delinquency. The day of reckoning comes when repayments start again. The MFI does not have any guarantee that late payments will not occur again. The Georgia Credit Fund reports that rescheduling has caused difficulty for many clients because the profitability of the businesses did not improve. They are now pursuing possible partial liquidation of the collateral together with rescheduling.

Unwilling but Able to Repay. The institution can pursue legal action or inform the community and influential persons of clients' unwillingness to repay. Their names can be publicly posted. Religious and community leaders can push them to pay. Community leaders can be informed that the MFI will stop lending in the neighborhood if arrears are too high. The entire neighborhood could lose because of several persons' unwillingness to honor their legal obligations. Handing clients over to debt collectors should be considered, but the institution then loses most of its leverage. If the MFI visits the client, all funds still go through the debt collector, which is very hard for the MFI to track. Also, most collectors' microenterprise clients

are smaller than their other clients. They may spend more time frying larger fish and leave microenterprise clients' files untouched. Another option is to train staff in debt collection; perhaps an attorney could help the MFI develop this capacity.

Unwilling and Unable to Repay. Following up on such groups is a poor use of staff time. They are best referred to debt collectors or written off.

Credit officers and their supervisors in several MFIs have found this "triage" activity very helpful in serious arrears situations. They can determine where to invest significant staff time (willing and able and unwilling but able quadrants) to yield the most improvement in the repayment of payments in arrears.

Conclusion

There is no magic recipe to reduce arrears. Often it is just plain hard work. First, prevention is always better than cure, so a clear understanding by the client that arrears will not be tolerated is key to keeping the situation from getting out of hand.

Second, MFIs need to have clear and effective credit policies and procedures approved by the board of directors that are followed by credit officers. If the policies and procedures are not effective, then the credit officers need to have a hand in creating new ones.

Third, management and credit officers need to pay attention to details. The average arrears rate of each credit officer's portfolio should be tracked weekly or biweekly.

Credit officers must respond quickly to problem clients in their portfolios. The credit supervisor must respond quickly to solve credit officer problems. A microfinance portfolio with very low arrears can, within a few months, exhibit a dramatic rise in arrears, which can destroy the MFI. It is very important that practitioners watch carefully that policies are followed once they are put in place. If things are not working, then the institution needs to identify the problem areas and fix them quickly. The alternative is bankruptcy.

If an MFI can reduce arrears and get the basics of finance right, then the organization's overall goals will likely make a significant contribution to the economic development of the poor people in a country. While reducing arrears is not the only determinant in the successful sustainability of MFIs, it is an important building block.

Notes

1. World Vision's Area Development Program (ADP) approach to development came about because of its all-inclusive nature. Instead of covering just a few villages, an ADP could cover a whole geographical area or an area within clearly defined political boundaries such as districts, provinces, etc. This means that the program would be larger, with 500 to 10,000 children and populations of 10,000 to 50,000 who benefit. Also, the ADP approach provides opportunities for long-term assistance. Program life has increased from a range of three to seven years to twelve to fifteen years. This came about as a result of the realization that development is a process that takes a long time. Genuine transformation takes years and should impact entire communities to be considered sustainable.

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Assessing the Need For Microenterprises in Mexico to Borrow Start-up Capital

by Heikki Heino
and José A. Pagán

Abstract: Mexico's microenterprises employ about 20 percent of the working age population in the country, and the number of microenterprises has increased substantially over the last decade. Given the role these small business units play in employment and wealth creation, it is important to understand the profile of firms that resort to outside start-up capital to finance their operations. Using microdata from Mexico's National Survey of Microenterprises (Encuesta Nacional de Micronegocios, ENAMIN), we analyze the socioeconomic factors related to the need for outside start-up capital. The findings show that a relatively small number of socioeconomic factors—such as the background of the microenterprise owner, the characteristics of the microenterprise, the operational business sector, the geographical location of the microenterprise, and the future plans of the owner—have important implications for the policy makers as well as for the capital-assistance tools used in fostering a microenterprise-friendly economic, social, and operational environment.

Introduction

Over the last few years, policymakers have become increasingly interested in understanding the factors associated with the provision of loans to microenterprises in developing countries, primarily because credit access has been recognized as an important tool for small business economic development and poverty reduction (Otero & Rhyne, 1994; World Bank, 1996).

At the end of 1995, about 26 billion dollars in loans to individuals and groups were outstanding by nearly 1,000 microfinance institutions in developing countries, including Mexico (World Bank, 1996). Private banks and cooperatives—which encompass the formal lending sector—were responsible for most of these loans (about 78 percent of the total loans outstanding). Nonetheless, informal lending sources—such as loans from friends or moneylenders—are still a substantial source of credit.

The economic significance of microenterprises is that they substantially contribute to the overall employment level in both developing and developed countries (de Wit, 1993). (Microenterprise is defined as a business with fewer than six employees or fewer than 16 in manufacturing sector. This definition is consistent with that employed in other studies in the development and microfinance literature, for example Sánchez, 1998, and Otero & Rhyne, 1994.) This economic importance—coupled with the electoral power of microenterprise owners—contributes to the increasing political power of microenterprise owners collectively in the fiscal and political process. It is also recognized that microenterprises represent the "backbone" of the local economies in less developed countries such as Mexico. In particular, the economic and social role of microenterprises is more important the less developed a country is (Liargovas, 1998).

In Mexico, about 6.6 million microenterprises existed in 1995—having grown from about 5.7 million (or 15.7%) since 1991. Further, in the same year, owners of microenterprises accounted for 20 percent of Mexico's workforce (Sánchez, 1998). The economic importance of the microenterprise sector in Mexico has been recognized by scholars and policymakers (e.g., INEGI, 1994; Sánchez-Schwarz, 1996; Chaves & Sánchez,

Heikki Heino is University Professor of Finance, College of Business and Public Administration, Governors State University in University Park, Illinois.

José Pagán is Associate Professor in the Department of Economics and Finance, College of Business Administration, University of Texas-Pan American in Edinburg, Texas.

forthcoming). In 1995, according to data from the National Employment Survey (Encuesta Nacional de Empleo, ENE), 38.7% of employed individuals worked in firms employing 51 or more workers, 7.9% were employed in firms with 16 to 50 employees, 3% in firms employing 11 to 15 workers, 6% in firms with 6 to 10 employees, 27.7% in firms with 2 to 5 employees, and 16.7% in firms with one worker (the owner) only. In total, 53.4% of those employed are working for microenterprises. This high employee concentration underscores the importance of microenterprises for the economy of Mexico.

Given the importance of microenterprises for employment creation in Mexico, the role of credit as seed capital for microenterprise development is an important economic and public policy issue. Although much has been written regarding factors that influence the supply of borrowed seed capital for microenterprises, both in general and in Mexico (see, for example, Evans & Jovanovich, 1989; Edwards, 1995; McCrary, 1991; and Liargovas, 1998), little has been written regarding factors that influence the demand for seed capital among microenteprises. This article sheds light on the factors that determine the demand for borrowed seed capital among microenterprises in Mexico. Factors examined include the owner's socioeconomic background, microenterprise specific characteristics, sector of operation, location of operation, and characteristics that predict microenterprise dynamics (contingency). Such an analysis further aids us in identifying the relationship between borrowed start-up capital and the creation of microenterprises and in identifying and formulating policy mechanism and investment strategies that the policy makers and private sector entities can pursue to increase the creation and survival of Mexican microenterprises.

The next section introduces the conceptual framework necessary for the formulation of the model used to analyze the data; we describe the survey methodology and data included in the sample. In the results section we discuss the findings of the data analysis and follow this with concluding remarks and policy recommendations.

Methodology

To analyze empirically the factors related to the need for outside financing to start up a firm, a probit model can be used (Greene, 1997). The choice to borrow or not to borrow the start-up capital is a discrete choice; it involves an "either-or" situation. The decision is a choice between two alternatives, similar in nature to why some high school graduates decide to attend college and others do not. Assume that the decision of a microenterprise owner to select outside start-up financing is based on an analysis of the expected marginal benefits and the expected marginal costs of receiving these funds. That is, the owner of a microenterprise derives certain utility from the outcome of the choice. The probit model for discrete choice is a nonlinear (in the factors) statistical model that achieves this objective by relating the choice probability to explanatory variables in such way that the probability remains in the [0, 1] interval, and it estimates the probability of relating the explanatory variables to the need to seek outside seed capital.

The factors associated with the decision to seek outside start-up capital to become a microentrepreneur will be analyzed using microdata from Mexico's National Survey of Microenterprises (Encuesta Nacional de Micronegocios, ENAMIN), conducted every two years by the Mexican National Statistical Institute (Instituto Nacional de Estadística, Geografía e Informática, INEGI). The survey was constructed by selecting 12,243 owners of microenterprises from urban areas (defined as an area with at least 100,000 inhabitants) and operating in four major economic sectors: manufacturing, commerce, services, and construction. Microenterprises were selected randomly from the last quarter of the 1993 National Urban Employment Survey (Encuesta Nacional de Empleo Urbano, ENEU). The survey examines reasons for becoming self-employed, income, capital structure, costs, enterprise problems, credit needs, migrant status, and employment patterns, among other factors. The ENAMIN definition of a microenterprise is consistent with the definition used by authors.

The ENEU represents about 92% of the urban employed population that were at least 12 years of age in 1993. The 16 urban areas surveyed in both the ENEU and the ENAMIN were Cd. Júarez, Chihuahua, Cd. México, Guadalajara, León, Matamoros, Mérida, Monterrey, Nuevo Laredo, Orizaba, Puebla, San Luis Potosí, Tampico, Tijuana, Torreón, and Veracruz. A total of 10,434 individuals/business—of 41,389 households—were identified from these urban areas (85% of 12,243 owners). In addition, 386 individuals/businesses—from a total of 1,080 households—completed the survey from a supplemental sample of 18 smaller urban areas, totaling 10,820 micoenterprise owners (total response rate of 88%). A stratified random sample probability method was used to select the self-employed and microenterprise owners from the urban areas.

The sampling unit in both the ENEU and the ENAMIN is the household. Households were selected through a three-step process. In the first stage, households were grouped according to socioeconomic status (high, medium, or low) into segments of usually five households. Within each segment, the sampling units were distributed proportionally to the total number of households. The second stage was then to select blocks of 20 to 50 households. A proper weighting factor was then applied so the results of statistical analyses could be generalized to the general population in the urban areas selected. Third, households with microenterprise owners were surveyed, either at the individual's home or in the business premises (person to person interview; not mail-in survey).

For the purposes of conducting statistical analyses and the testing of hypotheses—and following Sánchez (1998) and Maloney and Cuningham (1998)—variables can be constructed and classified into the following categories: characteristics of the microenterprise owner, characteristics of the microenterprise, sector of operation, location of residence or operation, and firm dynamics.

To test whether the need for outside financing depends on the measures stated above, data from the ENAMIN survey are used. Table 1 reports the definitions of the variables and descriptive statistics of the variables. Almost 40% of individuals in the sample reported a need for outside financing, which takes the form of either financing obtained from formal sources such as banks and cooperatives, or informal sources such as friends, family members, and other informal lenders.

Table 1. Definitions and Descriptive Statistics

Variable	Mean	Std Deviation
Characteristics of the owner		
Years of schooling	7.523	5.484
Age	43.511	13.303
Age squared/100	20.702	12.474
Married (1 = yes)	0.708	0.455
Female (1 = yes)	0.224	0.417
Migrant (1 = yes)	0.110	0.313
Involuntary entry into self-employment (1 = yes)	0.141	0.348
Characteristics of the microenterprise		
Years in business	10.567	12.607
Capital or equipment (in Pesos)	31.823	95.223
Labor (number of employees)	1.779	1.360
Sector of operation		
Commerce (1 = yes)	0.347	0.476
Service (1 = yes)	0.425	0.494
Location of residence or operation		
Center (1 = yes)	0.248	0.432
South (1 = yes)	0.139	0.346
North (1 = yes)	0.080	0.271
Border (1 = yes)	0.191	0.393
Microenterprise dynamics		
Permanence in the sector (1 = yes)	0.684	0.465
Plans to expand (1 = yes)	0.212	0.408
Sells directly to public (1 = yes)	0.902	0.298
Compliance with tax authorities (1 = yes)	0.459	0.498
N	5,818	

The mean age of the entrepreneurs in the sample (consisting of responses with no missing values) of business owners was 43.5 years. These individuals reported an average of 7.5 years of schooling, most of them are male and married, and only about 11% have migrated recently to their current region of residency. Most microenterprise owners report to be conducting business in the service sector (42.5%) and the commerce sector (i.e., retail and wholesale trade; 34.7%). Slightly more than one fifth of respondents are in the manufacturing and construction sectors. From this total, roughly 6% are in the construction sector; and for the data analysis purposes, the construction sector respondents are merged with the respondents from the manufacturing sector. Slightly above 40% of the microenterprises in the ENAMIN sample are located in the Mexico City metropolitan area, with about 19.1% located in the metropolitan areas along the U. S.-Mexico border.

About two-thirds of microenterprise owners entered the sector to stay permanently, 21.2% plan to expand their current size of operations, and most of these businesses sell directly to the public as opposed to other businesses. About 54% of microenterprises can be classified as operating in the informal sector in the sense that they operate without complying with tax authorities (see Robaud, 1995).

Results

Table 2 reports the results of the probit model. The values of the coefficients of the explanatory variables are grouped into categories: the characteristics of the microenterprise owner, characteristics of the microenterprise, sector of operation (the base sector is the combined manufacturing/construction sector), location of residence or operation, and the microenterprise dynamics. The partial derivatives shown in Table 2 capture the impact of a one-unit change in the independent variable on the probability of the owner of a microenterprise, indicating a want for outside seed capital (Maddala, 1983).

Table 2. Probit Regression Results: Need for Start-up Financing

Variable	Coefficient	Std Error	Partials[a]
Constant	0.885 ***	0.189	
Characteristics of the owner			
Years of schooling	-0.013 ***	0.004	-0.005
Age	-0.047 ***	0.008	-0.018
Age squared/100	0.035 ***	0.008	0.014
Married (1 = yes)	-0.051	0.041	-0.020
Female (1 = yes)	0.198 ***	0.048	0.078
Migrant (1 = yes)	0.016	0.055	0.006
Involuntary entry into self-employment (1 = yes)	0.164 ***	0.050	0.064
Characteristics of the microenterprise			
Years in business	0.008 ***	0.001	0.003
Capital or equipment (in Pesos)	0.001 ***	0.000	0.000
Labor (number of employess	0.028 *	0.015	0.011
Sector of operation			
Commerce (1 = yes)	-0.275 ***	0.049	-0.108
Service (1 = yes)	0.036	0.046	0.014
Location of residence or operation			
Center (1 = yes)	-0.016	0.045	-0.006
South (1 = yes)	-0.057	0.056	-0.022
North (1 = yes)	-0.144 **	0.068	-0.057
Border (1 = yes)	0.129 ***	0.048	0.051
Microenterprise dynamics			
Permanence in the sector (1 = yes)	0.100 ***	0.039	0.039
Plans to expand (1 = yes)	0.237 ***	0.047	0.093
Sells directly to the public (1 = yes)	0.170 ***	0.059	0.067
Compliance with tax authorities (1 = yes)	-0.126 ***	0.041	-0.049
N	5,818		
Chi-squared (df = 20)	208.818 ***		
Veall and Zimmermann's Pseudo-R^2	0.050		

*/**/*** significant at the ten percent, five percent, and one percent level, respectively.
[a] Evaluated at the mean values of the independent variables.

Before discussing the main findings, note that the model fits the data well, as can be deduced from a Chi-square statistic of 208.818, suggesting that the null hypothesis of a zero vector of coefficients is rejected at the one percent level of statistical significance. Moreover, the Veall and Zimmermann's (1996) Pseudo-R^2 measures further reinforce this result.

The owners' need for outside start-up capital decreases with increasing levels of schooling and age. Age also proxies experience, following the method of calculation found in other studies (Davila, 1997; age less years of schooling less 16). An additional year of schooling decreases the probability of needing outside financing by roughly half a percentage point, and each additional year of experience (age) decreases the probability of needing outside seed capital by 1.8 percentage points. With increasing years of schooling and experience, the need for outside start-up capital diminishes with the assumable increase in personal wealth accumulation. Moreover, education may be used as a proxy for the more general ability to acquire savings and new capital (Nabi, 1989).

Female microenterprise owners are more likely to resort to outside financing for start-up capital. These results are consistent with those of other studies which have found that on average, self-employed females are older than their male counterparts, perhaps because they face labor market barriers that hinder their ability to accumulate funds to start a business. Female entrepreneurs are also less likely to be married than their male counterparts, and therefore could have less of a financial support network than male business owners (Pagán & Sánchez, forthcoming; Maloney & Cunningham, 1998).

If people start a business because they cannot find salaried employment or they were fired from the last salaried positions (involuntary entry into self-employment), the need for outside start-up capital seems to be important.

Business experience in years (not limited to the planned enterprise), stock of capital (in pesos), and the expected number of employees—i.e., characteristics of the microenterprise—are all

statistically significant and positively related to the need for outside start-up capital. It is reasonable to assume that the more business experience owners have the more personal wealth they have accumulated. The findings are consistent with the premise that there is a positive relationship between the probability of starting a business and the size of personal assets, as stated by Evans and Jovanovic (1989).

The expected number of paid employees is also positively related to the need for outside start-up capital. This finding is consistent with the economics and finance literature, which indicates that the rate of expected return either increases with firm size—measured by number of paid employees—or is fixed (constant) with the firm size (Evans & Jovanovic, 1989).

Microenterprise owners in the commerce sector are less likely to need outside financing when compared to those in all other sectors (relative to the manufacturing = base sector).

In the border region the probability for a start-up microenterprise needing outside financing is greater than in the central, south, or northern regions of Mexico.

With regard to microenterprise dynamics, if the owners of microenterprises indicate the desire for the future expansion of their firms (plans to expand) or that they are going to stay in the current place of business or residency (permanence in the sector), the likelihood of relying on outside start-up capital significantly increases when compared to owners who do not have these types of plans. Additionally, when owners of microenterprises are in compliance with authorities (legal, tax, and labor) then the likelihood of outside start-up capital reliance significantly falls.

Concluding Remarks and Policy Implications

The largest percentage (66.8) of the individuals entering into self-employment through the creation of a microenterprise used personal savings to do so (Heino, 2000). The age of the owner, years of schooling, gender, involuntary entry into self-employment, years of owner's business experience, accumulated

capital, and planned size of the firm (as implied by the number of paid employees) are factors affecting the individual's need for outside start-up capital.

The sector of the operation as well as the geographic region of the microenterprise are similarly found to be statistically significant explanatory variables that affect the microenterprise owner's need for outside start-up capital. For example, owners planning to create a microenterprise in the Mexico City area are more likely to need outside capital to help them to get started, as compared with entrepreneurs in other areas of the country. Similarly, an entrepreneur entering into self-employment in the manufacturing and construction sector will more likely need outside start-up capital compared to an entrepreneur in the commerce sector.

Policymakers in both developed and less developed countries seem to use two basic policy measures to fuel the creation of microenterprises (Heino, 2000). The two policy tools used—in order to create an economic and social framework favorable to the birth and survival of microenterprises—rely on a variation of capital assistance for seed capital (e.g., globally subsidized loans, guaranty schemes, and direct financial support to nongovernmental organizations and on fiscal policy tools, organizing educational seminars, and other entrepreneurial training opportunities). The direct financial assistance approach without the increase in supportive policy actions that focus on incentives and services, structural improvements (not only in the capital markets), and cooperation between governmental (on federal, state, and local levels) and nongovernmental organizations seems to be increasing in importance. This conclusion furthers the belief that most, if not all, interventions by monetary or fiscal policy makers have a limited and at best short-term desired effect in the increasingly integrated global economies. It is also interesting to note that macro-level policy measures aimed to increase the competitiveness of the institutions in the informal credit sector could make microfinance services very attractive to a large number of potential

microenterprise owners. This would allow the informal sector institutions to provide the same services as formal credit-sector institutions at a more affordable price and with greater flexibility, resulting in a more homogenous competitive environment to all start-up microenterprises. Theoretically, this should increase the expected demand by the potential owners of microenterprises for borrowed start-up capital; and this demand will lead to an increased creation of microenterprises (which would also lead to increasing economic benefits to the surrounding communities) when the cost of start-up capital incrementally approaches the cost of starting a firm with personal savings (i.e., cost equals the foregone interest income from savings account). The use of macro-level policy measures aimed to "equalize" the cost of start-up capital across formal and informal sectors—without balancing the policy measures with measures aimed to ensure the existence of efficient capital markets, in which participants, small and large alike, have free (without restrictions) and equal access to the markets—is thus a fundamental requirement in establishing an economic environment that fosters growth.

Notes

In comparing formal sector borrowers to informal sector borrowers in Mexico, Heino (2000) found that a likely borrower from the formal credit markets differentiates from the likely owner of the microenterprise who borrows from the informal credit sector in the average years of schooling (formal sector borrowers are 66.2% more educated in terms of school years), the number of paid employees (formal sector borrows have more), age (formal sector borrowers are older), and tax compliance (formal sector borrowers are more likely to be in compliance with tax laws.

The ENAMIN survey also asked microenterprise owners why they started their businesses (the sample is weighted and it is equivalent to the responses of 3,060,243 microenterprise owners). About 24% of microenterprise owners said that they became self-employed in order to gain more independence; and 37% became entrepreneurs because the expected income from self-employment is greater than the income from a salaried position. Almost 36% went into business to complement family income, 10% started a business to follow family tradition, and 8% became entrepreneurs because no other employment opportunities were available.

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Book Review

Microfinance: Conversations with the Experts edited by Charles Oberdorf

by Matthew Wood

I have always been impressed by how microenterprise captures the strange mixture of idealism and practicality that makes moral action possible. When speaking of the poor—of the issues embedded within the microenterprise endeavor—too often our words become bounded by rhetoric, and the portrayal of real world solutions becomes skewed in favor of personal and institutional opinions. Through simple candor, *Conversations with Experts* avoids this common pitfall and offers the reader a glimpse into the daily decisions that weave ideals and action together.

In contrast to political and intellectual practicality, where opposing imperatives are blended into generally ineffective moderation, the real world practicality detailed in *Conversations* demonstrates that institutional practicality is very heterogeneous. The moral actions pursued by the institutions referred to in *Conversations* are concurrently radical and pedestrian, concurrently ground in market and social policy agendas. For example, it would be incorrect to characterize Rosalind Copisarow's efforts in Eastern Europe as the *market-based approach* and Vijay Mahahan's Basix as the *poverty-alleviation approach*. Neat, opposable dichotomies aren't to be found.

What can be seen is how the metric of final analysis, espoused by an institution, impacts the direction of future institutional growth. Institutions that pursue the ultimate formalization of microfinance into the greater economy first, and poverty alleviation as a by-product of process second, are presented, over time, with a different set of possibilities than institutions that pursue poverty alleviation first and market formality second.

Institutions cannot survive as fence-sitters. Business-critical processes must to be defined. Strategy must be pursued. *Conversations* provides a glimpse into not only the cultural variability of microfinance institutions, but also a view of the real-world incarnations of ideological differences. Although the microfinance institutions represented in this read draw adaptively on a spectrum of ideals, at the end of the day, or better put, at the end of the quarter, metrics of performance must be generated.

As the field of microcredit has evolved from a marginal social movement into the economic reality of microfinance institutions, the focal point of practitioner and intellectual analysis is the institutional imperative. Above all, for microfinance to succeed, the institution must be tended to. *Conversations* reiterates this imperative through its collective practitioner experiences. Regardless whether you are modeling efforts similar to SafeSave or Grameem, the institutional impact of inputs, donations, client behavior, and organizational structure must be monitored.

There does exist within the greater microfinance environment a rationale for defining a common set of metrics for all microfinance institutions. This book illustrates that not only is this unlikely, but inappropriate. The legitimate institutional heterogeneity that *Conversations* captures implies the need for institution-specific metrics.

Matthew Wood works in the area of Organizational Strategy and Design for Tavant Technologies. Matthew also works promoting literacy in developing countries. He is currently planning to work in Vientiane Laos to promote a literacy project there.

Microfinance: Conversations with the Experts provides a valuable sampling of institutional paradigms and best practices. It foreshadows an increasing variability of microfinance institutions, coupled with an increasing client, culture, and value relevance.

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