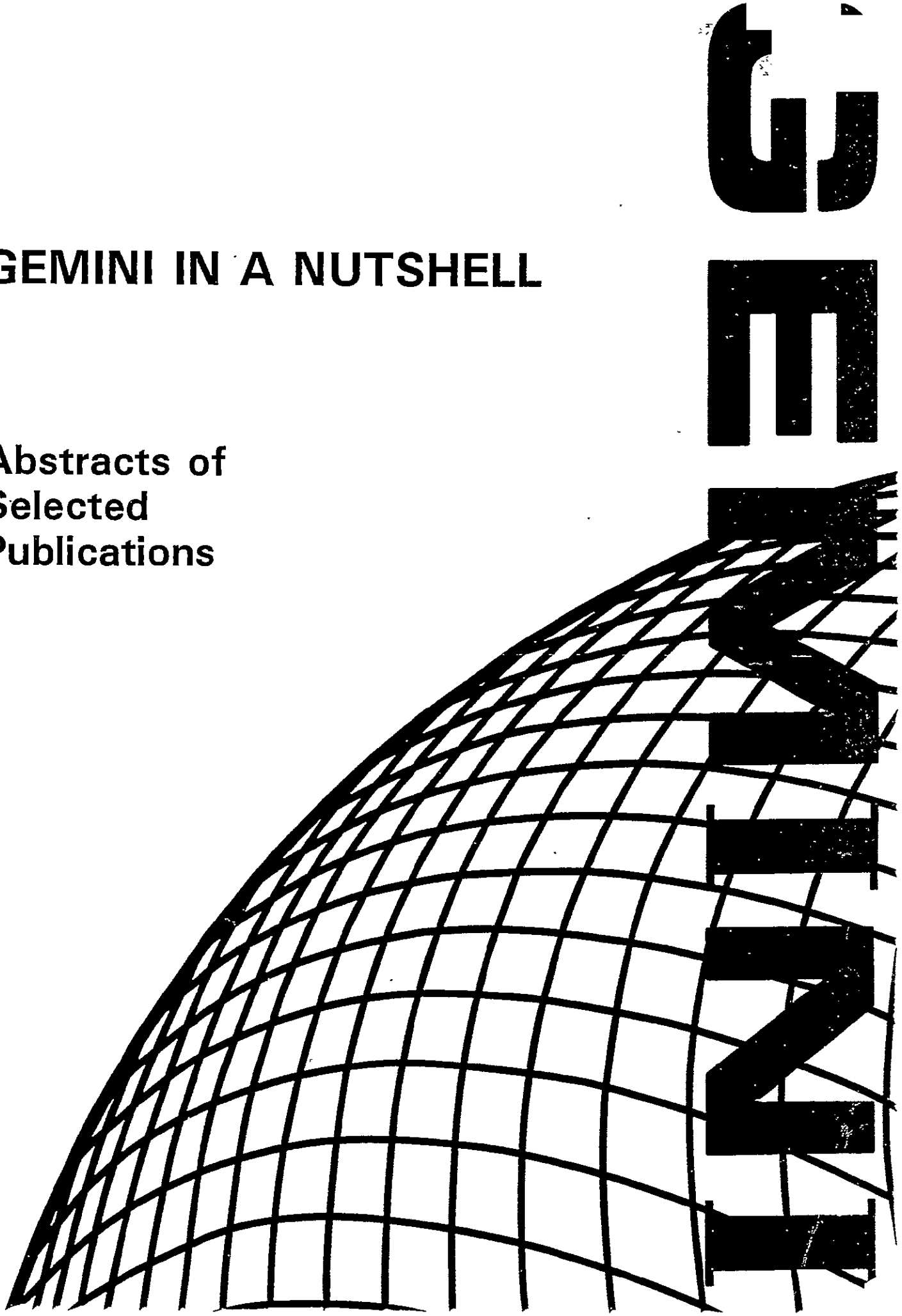
GEMINI IN A NUTSHELL

Abstracts of Selected Publications



GEMINI in a Nutshell

Abstracts of Selected Publications

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Development Alternatives, Inc.

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PREFACE

"GEMINI in a Nutshell" was prepared in response to a question frequently asked by donors, practitioners, consultants, academics, students, and others: "What is GEMINI all about?" We think the answer to this seemingly innocent question lies in the 120 documents produced in the first four years of the GEMINI project. However, the many publications and the three large bookshelves they occupy are understandably daunting. We felt that there had to be a way to publicize the lessons learned, extract the essence of the documents, and summarize key findings — to boil down what we had produced into a digestible format that made the knowledge more accessible — more user-friendly — to our various audiences.

"GEMINI in a Nutshell" is a partial response to the much-asked question. It contains abstracts from the key GEMINI documents, primarily from the Working Papers series. The Working Papers generally speak to wider crosscutting issues and are less specific to a particular program or country. The Technical Reports are produced in response to consulting assignments generated by USAID missions. One Technical Report was abstracted — again, a report with wider applicability than the single consulting assignment for which it was produced.

The abstracted documents are those that address the most pertinent issues encountered and those that are most widely requested by our audiences. The abstracts are organized according to the three broad action research programs under GEMINI: growth and dynamics, the frontiers of financial assistance, and the frontiers of nonfinancial assistance.

We hope this effort allows the GEMINI findings to reach an even wider audience than before. It is our objective that the findings and lessons abstracted will influence microenterprise development policies and program designs in a positive way. Only then will we have served our real audience — the entrepreneurial poor around the world.

A very special thanks to Michael McCord and Eugenia Carey for their hard work in reading all the GEMINI documents and distilling these abstracts.

Mohini Malhotra
September 1993

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SECTION ONE

ACTION RESEARCH PROGRAM I: GROWTH AND DYNAMICS

THE DYNAMICS OF SMALL-SCALE INDUSTRY IN AFRICA AND THE ROLE OF POLICY

GEMINI Working Paper No. 2[1]

Carl Liedholm
January 1990

This paper examines the dynamics of small-scale manufacturing enterprises in Africa.[2] It points out that there can be economically efficient micro- and small-scale enterprises (MSEs) in Africa. It explains the standard growth patterns of these businesses and examines their prevalence and significance throughout Africa. The paper also provides a basic listing of the characteristics of MSEs that are most likely to be efficient users of economic resources, and states that we should not expect more than a few MSEs to transform into modern medium- and large-scale industries. The paper also notes the effects of government policy on industry, and recommends the avoidance of sharply negative policy discontinuities that act as disincentives to firm expansion.

The paper begins with the presentation of static data to provide the context for the subsequent examination of the dynamic issues of MSEs. MSEs constitute a significant, often the dominant, part of the industrial sector in most African countries. They account for 59 to 95 percent of total industrial employment, although 95 percent of these firms employ fewer than five people (50 to 70 percent employ only one person). MSEs' share of total manufacturing value added is between 26 and 64 percent, and they contribute 2.9 to 8.3 percent of total gross domestic product (GDP) in the countries evaluated.

MSEs are typically located in rural areas where they manufacture light consumer goods that are almost always for local consumption in low-income areas. This constrains the demand for their products. There is a positive correlation between per capita income and demand suggesting that demand increases as local income increases. Backward, forward, and production linkages can increase the size of markets and therefore the demand for light manufactured goods, yet they tend to be weak in Africa because of small markets, foreign-owned firms importing inputs, and the poor development of legal systems.

The life cycle of a typical MSE begins as a one-person enterprise, and experiences four to five years of struggling to survive, with a high probability of failure. If the MSE survives for five years, the business is likely to experience a sudden growth spurt that will propel it into a larger category of small enterprise. Contrary to Gibrat's Law, there is a positive correlation between the initial size of the firm and its potential for transformation. Thus, it is not likely that an MSE will be transformed into a modern medium- or large-scale industry (although still rare, this transformation does occur relatively more frequently in West than in East or Central Africa). It is important to recognize that a significant number of MSEs will not experience growth.

Disappearance rates, which are a function of firm size, location, sector, and age, are highest for micro firms and lowest for the largest firms. These firm "deaths" are found to be highest during a firm's

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[1] This Working Paper is also applicable under Action Research Program III: Nonfinancial Assistance.

[2] Countries analyzed in this study include Botswana, Burkina Faso, Cameroon, Egypt, Ghana, Kenya, Nigeria, Sierra Leone, Tanzania, and Zambia.

initial four years, and they are seen to be negatively correlated to both firm size and initial investment. Researchers must be careful not to equate apparent death of firms with business failure because in many cases the businesses were simply moved (20 percent of total deaths in Sierra Leone, and 68 percent in Ecuador were not failures at all).

A key issue in considering the significance of small-scale industries is their efficient use of economic resources. It has been documented that employment generation per unit of capital and unit output per unit of capital are both higher for small-scale enterprises than for large-scale industries. Additionally, the social benefit-cost ratio tends to be greater for small-scale enterprises than for larger-scale enterprises. There is strong evidence that MSEs, especially those that use hired workers, operate workshops away from home, operate in localities with more than 2,000 inhabitants, and make products that offer better economic prospects, can be economically efficient.

On a macro level, time series and cross-country data have shown national industrial trends to follow a common path. The first step is the formation of an industrial base of light manufacturers. A country's base then evolves into the manufacture of intermediate goods, and finally into producing capital goods (this evolution occurs on a national level and does not imply that individuals or small-scale firms are evolving to the same level). This evolution is fueled by increases in per capita income. Virtually all African countries are still in the first stage of their development as manufacturers of light consumer goods.

The standard pattern of growth is that at a low level of per capita income, representative firms would be one person, working in her or his household, producing traditional goods in a rural area. As per capita income rises, the typical firm would be larger, producing modern consumer or intermediate goods for urban markets. At the highest level of per capita income, the representative firm should be large scale, producing modern capital goods for the larger urban markets.

The degree to which government policies and regulations act as a constraint to firm expansion appears to vary by country. Preliminary evidence indicates, for example, that policies and regulations are a more significant problem for expanding firms in Nigeria than in Ghana. However, the net effect of the policies of many nations has been to subsidize large-scale enterprises while penalizing small-scale enterprises. Additionally, many policies create a serious disincentive to growth because growth makes MSEs visible to authorities, who force them to follow oppressive policies.

Trade and business policy mechanisms used by governments often create constraints for business within their borders. Some policy-related constraints include:

- Overvaluing of exchange rates;
- Subsidizing of credit;
- Interest rate ceilings;
- Import duties;
- Quotas; and
- Tax incentives.

All these constraints tend to benefit larger enterprises over smaller ones. Minimum wage laws, mandated fringe benefits, and public sector wage policies make the cost of labor high for larger firms and prohibitive for smaller ones. Governments should work toward creating a more hospitable policy environment for businesses. In many cases, structural adjustment programs facilitate the creation of policies designed to aid the expansion of efficient small enterprises. But, the methods used in implementation sometimes prevent the reforms from actually benefiting small producers. This is especially true in Africa where most governments are politically and administratively soft.

GENDER AND THE GROWTH AND DYNAMICS OF MICROENTERPRISES

GEMINI Working Paper No. 5

Jeanne Downing
September 1990

GEMINI's Action Research Program I, the Growth and Dynamics of Microenterprises, aims to uncover common patterns in the evolution of microenterprises that can contribute to project designs that are sensitive to the needs of enterprises at different stages of their development. The purpose of this paper is to integrate gender concerns into the growth and dynamics research agenda developed by Michigan State University (MSU).

The paper begins by establishing the importance of gender variables to microenterprise development and exploring apparent contradictions between women in development (WID) and growth-oriented approaches to this development. WID researchers warn of the dangers of growth-oriented strategies, because of the concentration of women in low-growth, low-return microenterprises. Researchers fear that assistance schemes based solely on growth objectives will at best ignore women's needs, if not harm their economic interests. By contrast, MSU and other proponents of growth-oriented strategies argue that, because of the meager resources of most governments and the inability of many countries to generate any growth during recent years, it is imperative to target available resources toward dynamic subsectors that have the greatest potential for contributing to economic growth.

These two schools of thought, one with a poverty-alleviation focus and the other with a growth-oriented approach, constitute a debate on the best way to approach microenterprise development. This paper builds on that debate. A strategy is proposed that bridges growth- and gender-oriented approaches and capitalizes on their respective strengths and complementarities. The strategy includes the:

- Support, but not subsidization, for women's enterprises in subsectors that have few prospects for growth — in light of the importance of women's income to family welfare;
- Identification of interventions associated with viable subsectors in which women predominate — to unleash their income-generating and growth potential; and
- Promotion of policies, projects, and other interventions that facilitate the transition of female entrepreneurs out of low-return, low-potential subsectors into higher-return and higher-potential subsectors.

Implementing this strategy will require the economic analyses of MSU research and gender analysis. Gender analysis will bring together behavioral and entrepreneurial concerns with the enterprise-focused analyses of MSU. Gender studies will include analyses of the constraints and incentives that keep women in low-return, low-potential product markets. Women, it is argued, face even greater intersectoral immobility than men as a result of discrimination outside the household, cultural norms that create gender-specific role models, asymmetric rights and obligations, and the burden of women's reproductive responsibilities.

An understanding of what motivates female and male entrepreneurs to adopt a growth-oriented business approach will be required and, in particular, an assessment of whether different kinds of strategies can be employed to achieve growth. Researchers suggest that female entrepreneurs display a lateral growth pattern that involves increasing the number, rather than the size, of the enterprises in which they are engaged. Studies by MSU, the World Bank, and the International Food Policy Research Institute show that, especially in rural areas, entrepreneurs attempt to diversify their economic activities, rather than specialize, as a strategy for both maintaining and increasing their incomes.

The paper concludes with a presentation of hypotheses and corollary research questions at the macro-, subsector- and micro-levels for the purpose of guiding future research. At the macro level, the hypotheses include that:

- Women's food activities will continue because of their linkage functions;
- New subsectors built on women's traditional activities hold the most promise for new opportunities for women;
- As women are further displaced from traditional agriculture, they will participate more as employees than as entrepreneurs; and
- As women are further displaced from enterprises, they will be squeezed into the tertiary sectors.

At the subsector-level, the hypotheses include that:

- Subsectors are often disaggregated due to high external costs, gender-specific role models, and constraints on gender-differentiated access to resources; and
- The introduction of appropriate technologies can increase women's competitive position.

On the micro-level, the author hypothesizes that more women than men are clustered in the survival — and security-oriented — categories, whereas men dominate the growth-oriented category of entrepreneurs. This trend occurs because of a range of gender-distinguished constraints and disincentives. These constraints include lack of sufficient capital, credit, and income; information; time; labor; mobility and marketing; and skills and management, as well as cultural and age and life cycle limitations.

The author also includes policy implications related to the three levels of hypotheses that center around the need for the government to take a more active role in protecting and promoting women's industries, products, and opportunities for future productivity.

DATA COLLECTION STRATEGIES FOR SMALL-SCALE INDUSTRY SURVEYS

GEMINI Working Paper No. 11

Carl Liedholm
January 1991

The purpose of this paper is to express the preferability of the multiple-visit survey over the one-shot business survey in collecting nonstock-type data on micro- and small-scale enterprises. The paper analyzes these two strategies for data collection and offers suggestions for the appropriate use of each. It states that the most common method of collecting business data from MSEs, the one-shot business survey, is sufficient only if stock-type information is required. Multiple-visit surveys, historically most common for use with farm management and production studies, must be given serious consideration whenever flow-type information is needed, especially if the potential for significant measurement errors are to be kept within tolerable limits.

The one-shot method, with data collected through self-enumeration or by as many as two interviewers, has been found to yield a relatively low degree of measurement error in the collection of stock data. This type of data can indicate the extent and composition of small-scale activity in a country and provide the initial sampling frame for subsequent more-detailed inquiries.

Through the use of studies undertaken in Sierra Leone, Honduras, and Jamaica, it was observed that when term memory is required, as in providing information about business activity over time for a bore hole analysis, there are often significant discrepancies between fact and memory, and over time discrepancies also occur in memory. These findings indicate that the measurement errors associated with one-shot surveys of flow variables are extremely high and, therefore, should be treated with extreme caution and healthy skepticism.

For business flow information, the multiple-visit survey is preferable because it diminishes the reliance on term memory. Respondents are simply reporting current information. The study in Sierra Leone provided information suggesting that transactions involving purchases are more easily remembered for longer terms than are transactions involving output, sales, labor, or inputs. The former are often remembered for as long as a month, whereas the accuracy of the recollections of the latter appeared to drop after four days. This information helps in determining the resampling terms needed for the collection of various data. Thus the frequency of interviews is variable depending on the type of data required. However, interviews should ideally be conducted over the entire year to capture seasonal variations.

In conclusion, if only stock-type information on small-scale industries is required, a one-shot data collection strategy is quite appropriate. A multiple-visit survey strategy must be given serious consideration whenever flow-type information is needed, particularly if the potentially significant measurement errors are to be kept within tolerable limits.

DYNAMICS OF MICROENTERPRISES: RESEARCH ISSUES AND APPROACHES

Gemini Working Paper No. 12[3]

Carl Liedholm
Donald Mead
January 1991

This paper explores the field of microenterprise growth. Although in recent years much has been written about the nature and structure of small enterprises, the analysis has been static in orientation. The paper seeks to correct that imbalance, concentrating on dynamic issues relating to patterns of change among micro and small producers.

A firmer understanding of patterns of growth among micro- and small-scale enterprises can make a major contribution to the development of improved approaches to promoting the efficient and equitable growth of MSEs. It can help target such assistance in terms of the balance between different types of interventions (policy and regulatory reform, credit, and other types of direct assistance), as well as target assistance by type of enterprise (size, age, location, and sector of the economy).

The paper examines the question of microenterprise dynamics at four different levels: the individual, with particular attention on the entrepreneur; the enterprise; the subsector; and the economy as a whole, including issues of intersectoral linkages. For each of these four levels, the paper reviews existing theoretical approaches and empirical information, outlines outstanding issues and major themes, suggests specific research questions that should be explored, and outlines analytical approaches to address these questions.

THE ENTREPRENEUR

At the first level, the characteristics of the entrepreneur — his or her background and experience, education and age, motivation, and abilities — can have a significant effect on patterns of growth of the enterprise. In addition to these characteristics of the entrepreneur, one must also consider the interactions between the entrepreneur's activities in the enterprise under examination and other activities in which she or he is engaged. Other questions to be examined concern the movement back and forth between activities as a worker and activities as an entrepreneur. Important issues to be explored concern how motivations and strategies vary according to the gender of the entrepreneur.

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[3] See Working Paper No. 13, *Dynamics of Microenterprises: Research Priorities and Research Plan*, which is a companion to this working paper.

THE FIRM

At the firm level, variations in the amount of output and employment arise because of several different categories of change: births of new firms, expansion or contraction of existing enterprises, or disappearances (deaths) of existing firms. Theoretical models of the life cycle of firms have focused primarily on random factors and on the role of the entrepreneur. The few empirical studies examining the relationships between growth rates of firms and other variables have most often focused on firm age and size.

The goal of research in this area should be to generate a solid body of data concerning the life cycle of the firm, from birth, through possible net growth, and including possible disappearance. Armed with descriptive data of this type, the primary objective is to ascertain whether there are systematic patterns in the evolution of such firms in developing countries. Explanatory variables to be examined include the size and age of the firm, its location and subsector, and the gender and other characteristics of the entrepreneur.

Information needed to explore these questions can be collected through three types of surveys:

- Cross-section enumerations of enterprises in locations where such studies have previously been done;
- Bore hole surveys, tracing the past evolution of selected firms; and
- Longitudinal or prospective surveys, following patterns of change of particular firms over time.

Information generated in such surveys can be analyzed in a variety of ways. The data can be reported in simple tabular form, without any statistical analysis of the underlying relationships. At a more sophisticated level, three types of analyses are possible:

- Grouped data regression analysis;
- Use of selectivity models; and
- Duration and hazard models.

Such analyses should make it possible to construct stylized profiles of the life cycle of firms, portraying the expected size and survival probabilities of a typical firm in a certain subsector at various ages of the enterprise.

THE SUBSECTOR

At the level of the subsector, this approach involves an examination of patterns of change among a group of firms engaged in the production and distribution of a related set of products. In this approach, the universe under examination includes enterprises of all types and sizes engaged in the production and distribution of a particular group of commodities. The frame of reference includes suppliers of raw materials and intermediate products as well as producers of finished products. Equally important, it

includes in its field of analysis the marketing and distribution systems that link the various stages in the production process. Particular attention is paid to these vertical linkage mechanisms.

Key issues to be examined at the level of the subsector include:

- The changing role of different types of enterprises in particular channels, and the determinants of these changes; and
- The changing competitive position of different channels within the subsector.

Important dimensions of the analysis include:

- Changing patterns of specialization at different stages in the production and distribution system and how microenterprises can participate in increasing specialization, along with associated questions of risk;
- The firm-level counterpart of changes in the subsector;
- How competition determines returns to different participants, which in turn influences patterns of change within the subsector; and
- The gender dimension of subsector development.

In terms of surveys and approaches, it would be desirable to:

- Examine the same subsector in different countries, to explore the impact of country-specific factors;
- Look at different subsectors in the same country, to explore differences between subsectors operating in the same environment;
- Return to locations where subsector studies have been done previously, to examine changes since the first study was completed;
- Combine subsector studies with other types of surveys, to take advantage of synergism in learning; and
- Include some subsectors where microenterprises have played a significant role in rapid growth of a particular channel.

For the latter, it would be particularly useful to include some cases where good results have been achieved by women.

THE MACROECONOMY

The fourth level of analysis is concerned with intersectoral linkages and macro changes. For intersectoral concerns, the central task is to identify actual or potential sources of dynamism in the economy, and then explore the extent to which these "growth engines" create opportunities for multiplied development through reinforcement of positive linkages. At the related macro or comprehensive level, the central interest is in the changing relative importance of enterprises of different sizes and types, including their sectoral and locational dimensions.

An improved understanding of patterns of microenterprise dynamics at these different levels can make a major contribution to the improvement of policies as well as to the design and implementation of project interventions, leading to an enhanced role of microenterprises in the development process.

DYNAMICS OF MICROENTERPRISES: RESEARCH PRIORITIES AND RESEARCH PLAN

GEMINI Working Paper No. 13

Carl Liedholm
Donald Mead
August 1990

Working Paper No. 13 serves as the companion to Working Paper No. 12, *Dynamics of Microenterprises: Research Issues and Approaches*. Where Working Paper No. 12 defines the general research agenda for the study of microenterprise dynamics in the developing world, Working Paper No. 13 presents the topics and foci that should be given priority in the work of the GEMINI project, and it outlines a research plan for the work of the project. This paper was written with the recognition that any five-year project would not be able to complete the entire agenda presented in Working Paper No. 12.

An important research priority for GEMINI is to develop new insights on the dynamics of the individual microenterprise. A key early objective of this activity will be the generation of a solid body of descriptive evidence on the components (birth, net growth, and disappearance) of this process. Armed with these data, the primary goal will then be to determine whether or not there are systematic patterns in the evolution of such firms. The GEMINI analysis at this level will center on the disappearance and net growth components of microenterprise dynamics with particular attention on two critical junctures in the evolution of microenterprises: growth spurts and firm transformations. Bore hole interviews, repeat one-shot census enumerations, and longitudinal surveys will be used to obtain the required empirical data.

The second priority is the analysis of subsectors with the primary goal of describing the patterns of change in selected subsectors. This will include an examination of the degree of vertical integration and specialization in different subsector channels and the coordinating mechanisms between different functions within the channels and the subsector. Three types of surveys will be used in this analysis:

- A static subsector summary;
- The repeat of prior subsector studies to gain insights into sector dynamics; and
- The monitoring of subsector changes over time.

The third priority is an analysis of the entrepreneur. The priority research topics in this area will involve path analyses of the entrepreneur focusing particularly on the:

- Causes of an individual's movement from being a worker to being an entrepreneur;
- Changes in an individual's patterns of diversification; and
- Changes in the character of the individual's principal nonfarm activities, particularly in terms of crucial transitions or junctures.

All three of these types of changes will need to be approached in ways that clarify the gender differences in development patterns. These analyses will be conducted principally through modified bore hole surveys and will be supplemented by longitudinal (prospective) surveys.

The fourth level of analysis is that of intersectoral linkages and the macro economy. At this level, the objective will be to analyze the extent to which growth in microenterprises is explainable by growth in markets because of the expansion of income in identifiable primary sectors beyond the subsector. No primary data will be collected at this level.

Given a lower priority status for the GEMINI research are the topics of firm birth rates (they have less project relevance and the collection of data would be onerous), and macro patterns of microenterprises (there is little to be learned from a comprehensive study if, as is the case, there is an absence of micro- and sector-level data).

Recognizing that it is desirable to concentrate surveys and analytical work in as few countries as possible, it is anticipated that there may be only four core countries. These core countries will be the subject of intensive multilevel, multimethod studies to provide a solid understanding of microenterprise dynamics in those countries. Additionally, some noncore countries will undergo a lesser degree of scrutiny to provide the diversity needed in seeking to understand the broader picture of microenterprise dynamics in the developing world as a whole. The anticipated four core countries will be Kenya, Malawi, Jamaica, and the Dominican Republic (Zimbabwe was later added). Noncore countries, chosen for their diversity, may include: Egypt, Honduras, Indonesia, Lesotho, Mali, Niger, South Africa, Tanzania, and Thailand.

Other major activities planned for the growth and dynamics portion of the GEMINI research will be cross-country research and dissemination of results. The cross-country research is necessary in recognition that the analysis of research issues in microenterprise development must reach beyond individual countries to look at patterns of change in a more comprehensive way. This search for generalizations is relevant at each of the four levels of analysis presented above. Dissemination of new information will initially be accomplished as a by-product of coordinated research efforts between GEMINI and organizations engaged in providing assistance to microenterprises. Efforts will be made to share the approaches proposed, as well as results obtained with other interested groups within each country. Dissemination will also occur through multinational cross-country research, regular publications, and conferences.

BASELINE SURVEYS OF MICRO- AND SMALL-SCALE ENTERPRISES: AN OVERVIEW

GEMINI Working Paper No. 16

Donald C. Mead
Yacob Fisseha
Michael McPherson
March 1991

This paper is basically a marketing document promoting the GEMINI method of preparing baseline surveys of cities, towns, regions, and even entire countries. The method and its steps are described in general terms, and estimates of required resources and time are provided. Particularly helpful in finding hidden micro- and small-scale enterprises, the method also saves significant time because the procedures and questionnaire are standardized. Additionally, within the array of data that is collected, clients are able to gain much information about specific sectors in the sample area.

The sampling is completed in two major steps. In the first step, the target area is stratified into relatively homogenous components. These stratum are then divided into sampling units from which random sample areas are selected. Within these areas, each household and place of business is visited to determine the presence of nonfarm activities. If nonfarm activities are present, a questionnaire is administered.

The second step, tailored to the specific needs of the client, is the administration of a detailed questionnaire to specific firms determined from the results of the first step. The data gathered in this step is closely analyzed and strategic recommendations are provided.

The complete data set provides not only static information, but also develops a solid framework from which to add future data sets based on the re-enumeration of this sample. This offers an opportunity to gain significant information about the dynamics of the sample, or sectors within it, and a basis for future indications of the effects of program interventions or policy reforms.

THE STRUCTURE AND GROWTH OF MICROENTERPRISES IN SOUTHERN AND EASTERN AFRICA: EVIDENCE FROM RECENT SURVEYS

GEMINI Working Paper No. 36

Carl Liedholm
Donald Mead
March 1993

The findings from baseline surveys of microenterprises conducted in seven countries — Botswana, Kenya, Lesotho, Malawi, South Africa, Swaziland, and Zimbabwe — provide new insights into the current structure and past patterns of growth among these enterprises in Southern and Eastern Africa. These insights provide valuable inputs for the planning and implementation stages of the development process. Additionally, the regional focus of this paper allows for a level of generalization, broadening our understanding of the growth and dynamics of micro- and small-scale enterprises.

With regard to the current structure of MSEs, it is clear that the current magnitude of employment in these enterprises in the region is large, providing work for substantially more people than the formal sectors in most of these countries. Most MSEs are in rural areas, more so than in other parts of the world. Employment densities — MSE employment per thousand persons in the population — appear to be unusually high in rural areas, particularly in Zimbabwe and Swaziland. The sectoral breakdown of employment indicates that about two-thirds of all MSE workers in rural areas are in manufacturing activities. By contrast, in urban areas only one-third or fewer MSE workers are in manufacturing in each of the surveyed countries, except in Zimbabwe where the proportion is close to two-thirds. Within manufacturing, an overwhelming majority of MSE workers are concentrated in three sectors: textiles and garments, food and beverages, and wood products (this trend holds true throughout the developing world). The relative importance of these three sectors varies widely from one country to another. For example, in Malawi almost 40 percent of the manufacturing sector is involved in food and beverages, whereas in Zimbabwe, the figure is a mere .8 percent. This difference may reflect strong government controls or differences in tastes.

In general, MSEs are very small. In most countries, two-thirds of all such enterprises consist of only one person, with few enterprises engaging more than five people. The labor force is made up overwhelmingly of proprietors and unpaid family members. The negligible share of trainees and apprentices sets this region apart from West Africa, where MSE workers can constitute as much as one-half of the total labor force. This lack of trainees and apprentices leaves a relative human capital void in Southern Africa, a situation that may hinder economic growth in the future. Women play a major role in MSEs, constituting a clear majority of both proprietors and workers in all the countries studied except Kenya and Malawi. The major role played by women suggests that MSE promotion provides an important avenue for channeling assistance to them. There has been a tendency to think of MSEs as largely part-time activities, relying heavily on provision of labor by children. This perception is clearly erroneous based on the data obtained for these Southern African nations.

With respect to dynamic issues, a key finding is the high growth rate of employment among existing MSEs in the region. This growth rate, which is similar to that found elsewhere in the developing world, is usually more than double the growth rate of GDP in these countries. The national averages, however, hide wide variations in several dimensions. Urban enterprises grow substantially more rapidly than rural ones. Some sectors of the economy grow more rapidly than others, although no clear pattern emerges across countries in this regard. Enterprises owned by males grow more rapidly than those with female proprietors, reflecting in part the concentration of males in more rapidly growing sectors, although it has been shown that even within the same subsector, firms owned by men grow faster than firms owned by women. The service sector tends to be the fastest growing, whereas manufacturing is the slowest growing sector. Firm growth has also been found to be inversely related to size with smaller firms growing more rapidly than larger firms. An inverse relationship was also found between an enterprise's age and its growth rate, with older firms found to be more stagnant. Finally, the majority of MSEs do not grow at all; the high average growth rates reflect the fact that less than one-half of all enterprises experience high growth rates. These findings point to the importance of age, gender, initial size, location, and sector in understanding growth and the consequent need to incorporate these life cycle components into any analysis of firm dynamics.

Growth, as it is used in this paper and in most papers, is determined by employment growth. This indicator has the benefit of being the easiest for proprietors to remember and does not require deflation, yet there are biases in this measure that should be considered. For example, a study in Kenya found that although changes in real sales and employment are positively correlated, growth in sales rates exceed those in employment. This suggests that employment growth may be a lower estimate of firm growth.

Net expansion in employment among MSEs comes not only from growth of existing firms, but also from the establishment of new enterprises, adjusted for losses caused by firms going out of business. Although little information was collected in the surveys on firm births, a supplementary questionnaire provides information about firm disappearances. The likelihood of disappearance is highest in the first three years of a firm's existence and it declines substantially thereafter; analysis suggests that about one-half of all new enterprises disappear before the end of their third year. Only about one-half of these firm closures can be considered failures as a result of bad business conditions. Other explanations include a move to better opportunities, personal reasons of the entrepreneur (including old age or sickness), or government interventions. Hazard analysis reveals that the firm's location, sector, and past growth rate are all statistically significant determinants of its chances of survival.

In asking entrepreneurs about problems and constraints that they face, some clear patterns emerge. About one-third of the respondents indicated that they face no serious problems. Among those listing problems, two categories predominated in the responses: problems of finance, particularly a lack of working capital, and a lack of available markets. Other problems received attention in some countries or at particular stages in the enterprise life cycle. It is striking that the respondents made little mention of problems with taxes and governmental regulations. It is important to recognize that these responses are the perceptions of the entrepreneur and therefore might be reflective of symptoms rather than true problems. For example, the identification of a need for finance might stem from poor product quality or inefficient inventory management. Additionally, respondents might be selective in their reporting, in hopes of receiving particular benefits or to downplay their own inadequacies.

SECTION TWO

ACTION RESEARCH PROGRAM II: FINANCIAL ASSISTANCE

BANKING ON THE RURAL POOR IN MALAYSIA: PROJECT IKHTIAR

GEMINI Working Paper No. 6

David A. Lucock
September 1990

This study investigates the credit delivery system, performance, and replicability of Project Ikhtiar (PI), a program begun by the Science University of Malaysia. The project began in 1985 as a pilot project to test the viability of providing credit to "unbankable" poor families involved primarily in agricultural activities in Selangor State. The endeavor adapted the credit system used by the Grameen Bank (GB) in Bangladesh. The pilot project exceeded its target of 300 borrowers, extending 373 loans to 448 members. This success led to the formation in 1987 of a private trust, Amanah Ikhtiar Malaysia (AIM), to continue the efforts. The Malaysian Islamic Economic Development Institute (YPEIM), a nongovernmental organization (NGO), provided seed capital for additional lending.

STRUCTURE

AIM is composed of two divisions — one for project administration and one for field operations. Within the field operations there are regional offices, branch offices, and borrower centers (GB has an additional area office between the branch and regional offices). The borrower centers are made up of six borrower groups (each group with five individuals, similar to GB); these centers are overseen by field staff from the branch offices. Field staff are expected to service as many as 300 individual borrowers each; they provide the initial training and attend 10 borrower center meetings a week. Branch office managers spend a month receiving on-the-job training with the GB in Bangladesh. The regional offices oversee these branch offices; one regional staff member oversees six branches. The regional offices, in turn, report to and are monitored by the administrative division.

METHODOLOGY

The manager of a new branch conducts a means test while he or she is informing potential customers of the availability and conditions of loans. This test lasts 30 minutes and emphasizes personal and family income, the state of the family's house, and the total value of family assets. Loans are restricted to individuals who earn only two-thirds of the governmental definition of poverty. Groups should be made up of people of similar ages from the same social, economic, and educational backgrounds. Group members should share the same mosque and may not be closely related. Borrowers must organize themselves; once organized they receive a week of rigorous Compulsory Group Training (daily tests; daily $0.20 savings required; daily attendance required; observe protocol; no eating, smoking, or chatting) in order to pass the strict Group Recognition Test (to know by heart PI's philosophy, rules, and regulations and their individual responsibilities). At this point, the groups qualify for PI loans; two members of the groups may receive loans at eight-week intervals — the two poorest members receive the first loans. Instead of paying interest, borrowers are charged a $28 loan fee to pay for PI's administrative expenses; the government subsidizes 66 percent of the first loan and 33 percent

of the second. Loans are repaid at weekly meetings over 50-week terms and are not collateralized. If a group member defaults, members of his group must pay $0.75 a week and all 30 members of his borrower center must pay $0.37 a week until the loan has been recovered. Five percent of the original loan is placed in a group fund; these savings earn interest at the National Savings Bank. Borrowers must deposit an additional $0.37 a week in this group fund as well; in case of emergencies, any member may borrow up to 50 percent of this fund without fees. In addition, borrowers must open individual savings accounts where 95 percent of their loans are deposited. Upon leaving PI, a member may withdraw his accumulated savings from the group fund.

Project Ikhtiar differs from the Grameen Bank model in several ways. PI is not a bank; it is overseen by a private trust. PI charges loan fees, not interest. PI allows up to 50 percent of the group fund account to be loaned; GB allows only 50 percent of the total funds collected. PI enforces a special savings fund to recover loan arrears, has computers in the branch offices, and has a more rigorous test to determine eligibility.

RESULTS

Loan recovery of PI exceeds 99 percent and illustrates the success and importance of close and regular contact with borrowers coupled with the guaranteed availability of financial services to customers in good standing. During the pilot project, 74 percent of loans were for agricultural purposes; petty trading activities account for 50 percent of the current lending. Based on a sample of 328 borrowers in 1990, the study found the average loan size was $286 and the effective cost of borrowing this amount was 47 percent, including the required savings, if the borrower paid the full loan fee (inflation in Malaysia in 1989 was 2.8 percent). The study found an increase in borrower income of 45 percent during the pilot project and 56 percent in the current project. The impact on women borrowers has been much higher than the impact on men (in the pilot project, women borrowers achieved income increases twice those of men). Project staff attribute this increase to better counseling of members in choosing their business activities, an increase in trading activities (which have higher profit margins), closer surveillance of loan funds, and increased lending to women.

Project Ikhtiar is not a self-sustaining project. It received $500,000 in seed capital from YPEIM, and the government subsidizes the loan fees. Participating state governments and the federal government pay for the expansion of PI activities and branches into new areas. The project's goal is to reach 150,000 households. Project planners believe 60,000 households can be serviced by 30 branches within about six years (by 1990 nine branches had made 999 loans to 1,782 members, of whom only 90 were men); this is the break-even point to enable all loan fees to cover all administrative expenses. It is estimated that this expansion will require an additional $7.4 million; this money will be requested from the federal government at zero interest rates and a 20-year term.

LESSONS LEARNED

PI responded to a need for financial services for the rural poor in Malaysia; village surveys sharpened the project's focus on this intended target group. PI has benefited by the creation of AIM to oversee it; this private trust is dedicated to the success of the project, possesses a well-trained staff, and is not subject to political, factional, or profit-making pressures. The use of borrower groups has been an effective instrument to reduce transaction costs to members and ensure loan recovery. Women seem

to accept and follow the principles and concepts of groups more readily than men do and are more able to organize their time to attend the weekly meetings. The study theorizes that group formation for lending may lead to a bias toward lending to women. The study further theorizes that the widespread participation in this project in spite of the stringent and unpopular requirements indicates that the project is succeeding in reaching the extremely poor who lack any other credit alternative. The credit program has been successful because of its simplicity and its strict rules; no exceptions are made on loan enforcement. It is important that borrowers receive adequate training to understand their responsibilities. Donations should not be mixed with credit; this confuses borrowers and undermines self-reliance. The promise of continuing access to credit is a strong incentive toward prompt loan repayment. Finally, demand for savings facilities grows rapidly as borrowers' business activities succeed.

Several factors might impede the replicability of the Project Ikhtiar. Some countries may have trouble creating an impartial and autonomous institution such as AIM to implement a program of financial services for the very poor. Not all countries have a bank branch network such as Malaysia's National Savings Bank to facilitate orderly disbursement of loan funds at locations close to the borrowers. The PI model used seed money and has funds to cover losses on administrative expenses for the first six years of the program; other countries may not have similar resources. The PI model requires a dedicated, trained staff that is willing to live in rural areas. Finally, group logistics are important. Group success depends on a strong sense of community obligations, relative geographic proximity, unrelated members, and independence from political, religious, and other social pressures.

A FINANCIAL SYSTEMS APPROACH TO MICROENTERPRISE

GEMINI Working Paper No. 18

Elisabeth Rhyne
Maria Otero
April 1991

This paper addresses a goal shared by many who work in the field of microenterprise development. That goal is to enable the majority of poor entrepreneurs throughout the developing world to have access to financial services provided from locally generated funds, without external subsidies. This paper advocates and describes the theory, approach, and policy recommendations of a financial systems approach to microenterprise development that works toward this goal. The ideas discussed in this paper form the basis for the GEMINI project's analysis of appropriate financial assistance for microentrepreneurs.

The financial systems approach argues that microenterprise finance should be treated as part of financial system development, using sustainable techniques to reach large numbers of poor entrepreneurs. The approach advocates that an effective way to provide sustainable services to poor microentrepreneurs and address poverty alleviation, income improvement, growth in productivity, and sustaining of jobs is to create strong financial institutions with a mandate and an ability to serve the poor. This theory assumes that a healthy financial system in which loans are demanded and repaid indicates that financial resources are contributing to economic growth and poverty reduction.

This method requires that institutions adopt certain key principles of credit delivery and savings services and abandon the tradition of isolated donor-dependent programs in favor of the development of the financial system itself. These changes are built on the following elements:

- A market perspective that is responsive to the preferences and needs of the target group;
- A recognition that savings can be as important as credit for microenterprises, financial institutions, and the economy; and
- Insistence that financially viable institutions provide financial services.

To succeed, this approach requires that micro-credit institutions develop the ability to break even or turn a profit in their lending operations and gain access to funds from nonsubsidized sources. Sustainability is an important goal; it frees programs and institutions from fickle donors and shifts in national policies caused by changing political priorities.

Further development of financial systems is necessary because traditional financial markets have not adequately served small enterprises. Commercial banks usually require collateral for loans, as well as high-cost credit checks and loan appraisals. They prefer to service larger loans and savings accounts because the bank's administrative costs are the same regardless of account size. In contrast, microenterprises usually have small start-up capital needs and lack marketable assets. The greatest demand of microentrepreneurs is for short-term working capital loans, which require more flexibility than fixed loans, and secure deposit-taking facilities that maintain the value of assets (most small enterprise investment comes from savings, not credit). Donor programs for microenterprises often adopt

commercial bank methods and emphasize project appraisal. In addition, the penchant of donors for subsidized interest rates distorts the financial market and the ability of programs to achieve financial sustainability based on changing market interest rates. The informal financial sector is more responsive to the needs of microenterprises, but it lacks depth in intermediation, is separated from the financial mainstream, and is not governed by prudential regulation and supervision intended to protect savers.

PRINCIPLES FOR DELIVERING FINANCIAL SERVICE TO THE POOR

In contrast to traditional commercial bank lending techniques, many of the methods adopted to deliver financial services to the poor consciously resemble the techniques of informal lenders. Successful programs know the market and recognize that the poor are willing to pay for access and convenience. Thus, programs provide loan terms of one year or less and minimize attempts to direct the use of credit. The transaction costs to the borrower are reduced through convenient banking locations, simplified applications, and rapid loan dispersal. Administrative costs are reduced by reviewing eligibility and character references, not project appraisals. The costs of determining eligibility can be transferred to the borrower or a group of borrowers. Finally, repayment is motivated by group guarantees and social pressures, promises of larger loans upon successful repayment, and savings requirements. The linchpin to servicing poor microentrepreneurs is the substitution of a repayment incentive structure in lieu of costly information gathering, which enables lenders to serve microentrepreneurs at a reasonable cost.

Savings facilities are as important to the poor as are sources of credit, and are the critical component in ensuring the long-term viability of financial institutions. Savings programs should be responsive to customer needs, which include safety, convenience, ease of deposit and withdrawal, and positive real returns. Savings programs should not be limited to borrowers. More people want a safe place to save than want loans — thus, savings services can reach deeper into the community. In this way, lending to microenterprises can be financed to a great extent by savings mobilized from the community.

SELF-SUFFICIENCY

A financially self-sufficient credit program adopts full cost pricing policies in its lending operations to cover all expenses, such as operating costs (including loan loss reserves), the cost of funds, and inflation. Fees and interest rates charged to borrowers cover these expenses and maintain the real value of loan capital. To be commercially viable, an operation must yield a profit. To date, very few micro-credit programs are completely self-sufficient. The paper identifies four levels of institutional financial self-sufficiency. **Level One** captures programs that rely heavily on subsidies and soft loans; decapitalization is an ongoing problem. At **Level Two**, programs come closer to covering operating expenses and the cost of funds, but grants are still required for some aspects of operation. Most, but not all, subsidies have been eliminated by **Level Three**; BKK of Indonesia, ACCION, and the Grameen Bank of Bangladesh have reached this stage. At **Level Four**, the program is fully financed from the savings of its clients and funds raised at commercial rates from formal financial institutions. Only the BRI Unit Desa system of Indonesia and a few credit unions in selected countries are completely self-sufficient. While we do not yet know whether Level Four operations can be reached worldwide, Level Three has been achieved across an array of cultural, economic, and institutional variations. It is easier for programs to become self-sufficient if they begin at a higher level than if they attempt to evolve from Level One to Level Four.

INSTITUTIONAL ALTERNATIVES FOR PROVIDING FINANCIAL SERVICES TO MICROENTREPRENEURS

Several institutional variations are possible to fill this need for financial services in the microenterprise sector. The determining factors for the success of such services are:

- The quality and efficiency of the services provided;
- The ability of the institution to support the services; and
- The assurance that programs reach the selected client group.

One possible approach is to link NGO microlending programs to formal sources of finance. MSE programs may finance borrowing from commercial banks if the loan can be repaid at rates acceptable to the bank and the bank is convinced the borrowers are creditworthy. Alternatively, second-level institutions may be formed to link formal banks and microcredit programs. These intermediaries raise funds from banks, governments, and donors and channel them to individual programs.

Another possibility is to transform NGO credit programs into deposit-taking and loan institutions. Such a transformation involves structural reorganization of the NGO, the adoption of full cost pricing and the organization of branch offices. Furthermore, the institution must modify itself to fit within existing laws and must abide by the prudential regulations which govern all banks. Finally, the institution must have owners whose interests are aligned with institutional success. There must be an incentive for sound, efficient management.

A third alternative is for commercial banks to take on the microenterprise client group directly. The BRI Unit Desa system has proved this approach is not unrealistic; indeed, it is the only formal bank engaged in microfinance that has reached self-sufficiency.

POLICY STEPS TO PROMOTE FINANCIAL SERVICES FOR MICROENTERPRISES

To support microenterprises development, local and national government, financial institutions, and multilateral and bilateral donor organizations must review their financial systems policies. These policies should:

- Make it easier for programs that target microcredit to become financially self-sufficient;
- Support the efforts of NGO-based programs to access commercial sources of funds;
- Support the efforts of NGO-based programs to become specialized financial institutions; and
- Encourage existing financial institutions to develop specialized microenterprise operations.

A top priority in facilitating these policies is interest rate deregulation. Full cost pricing is the best strategy for microenterprise lending programs to become financially self-sufficient, and positive real returns on savings will encourage the use of savings rather than credit to finance microenterprise investment. A second important step is a reconsideration of regulations on acceptance of deposits. Although individual deposits must be protected from mismanagement or fiscally unsound institutions, savings services are a crucial element of services to microenterprises. The solution lies in supervisory standards tailored to specialized operations or institutions. Programs offering credit for microenterprises might be permitted to take deposits, provided they meet the following requirements: minimum equity investment, adequate loan loss reserves, required reserves, and maintenance of proper accounting standards. Programs might be required to keep loan sizes small to discourage individuals who wish to circumvent normal banking procedures.

Steps that donors may take to encourage greater independence of institutions include:

- Requiring an increasing percentage of funds to be raised from savings;
- Guaranteeing loans from commercial sources; and
- Providing equity capital.

Commercial financial institutions should be brought into partnership with microenterprise programs as early as possible. Finally, donors and successful microenterprise financial institutions must take the lead in advocating a financial systems perspective toward microenterprise development, by demanding better performance on projects funded, by spreading information on successful programs across countries, and by encouraging supportive interest rates and regulatory policies.

THE MICROENTERPRISE FINANCE INSTITUTIONS OF INDONESIA AND THEIR IMPLICATIONS FOR DONORS

GEMINI Working Paper No. 20

Elisabeth Rhyne
June 1991

This paper reviews the achievements of the microenterprise finance systems of Indonesia: the provincial systems linked to the Bank Pembangunan Daerah (BPD) or provincial development banks, and the Unit Desa System of the Bank Rakyat Indonesia (BRI). The paper analyzes the elements of credit delivery that have enabled these systems to succeed in serving large numbers of poor clients on a profitable basis, and outlines the crucial role that government and donors have played in supporting these systems. It argues that the systems offer a model that can be followed in other countries to expand financial services to microenterprises.

The success of the BRI and BPD systems in Indonesia has proved the sustainability of providing financial services to microenterprises and has led to increased competition from new entrants into this market niche. Few doubt the magnitude of the achievements of these programs; by 1989, BPD had 829,000 borrowers and more than 1 million savers, and BRI had $614 million in loans outstanding and $647 million in savings held. Loan sizes are small (the average BPD loan is $40; the average for BRI is $437), indicating that the programs are reaching genuinely poor customers. All these systems generate strong profits and are growing rapidly, especially in savings, in line with the adoption and use of improved savings vehicles. Although these systems are not free of problems and risks, they have achieved very impressive results because of:

- A proven credit delivery methodology;
- The introduction of voluntary savings instruments;
- The individual lending and deposit-taking units, which are the cornerstone of financial self-sufficiency;
- The supervisory structure; and
- Supportive policy and government.

The BPD supervises different local financial institutions in seven provinces owned by provincial and district governments; the Badan Kredit Kecamatan (BKK) of Central Java is the best known. The BRI runs the separate Unit Desa System (village unit); these are government-owned commercial banks that run the KUPEDES loan program and the SIMPEDES savings accounts.

CREDIT DELIVERY METHOD

Credit programs that have successfully reached large numbers of the poor share three elements: services fit customer needs and capacities, lending procedures are streamlined to reduce the unit cost of lending to a bare minimum, and repayment is motivated by social pressures and positive incentives. By substituting repayment incentives for costly information-gathering processes to determine risk levels, lenders can significantly reduce the cost of servicing this market.

In response to consumer demand, all BPD systems provide short-term loans (three months or a year) paid in weekly or monthly installments. First-time loans are disbursed in a week, repeat loans take one or two days. Effective interest rates are quite high — 35 percent to 84 percent (commercial banks charge large rural enterprises 20 percent to 25 percent). BRI offers greater flexibility in loan terms because of the larger loans offered. Most are short-term, similar to BPD loans, with an average effective interest rate of 32 percent. These rates are higher than those offered by commercial banks but below the rates of informal lenders. Transaction costs for borrowers are low; BPD applications are a half page of questions covering name, address, nature of business, use of loan, and amount requested. Perhaps most importantly, the BPD posts (there are 4,000 spread across seven provinces) are located near village markets, so borrowers spend little time and money traveling to the posts. BRI outlets (3,500 nationwide) offer nearly the same ease of application, but they are located in larger towns, the subdistrict capitals. The importance to villagers of ease of access is demonstrated by the fact that villagers use the BPD systems when they are closer to them, even though the BRI units offer cheaper loans.

The second key element of the credit methodology is the use of techniques that cut administrative costs to the lowest possible level. In addition to the simple application forms, BPD systems further reduce costs (and enhance convenience) through their networks of village posts, which consist of two staff members and a motorcycle, operating once a week out of buildings normally used for other purposes, such as village government. The BRI Unit Desas use a more complicated loan application process, involving site visits, simplified business appraisals, and collateral appraisal. This raises BRI's costs considerably, but BRI finds that its own risk/return tradeoff works best with slightly more investigation, higher costs, and larger loans. Each system has fine-tuned these elements to arrive at a balance between costs, risks, and customer needs.

The third element in successful credit delivery is selecting and motivating borrowers to ensure good repayment performance. The successful efforts in Indonesia rely on character-based lending; this minimalist credit approach uses motivational techniques instead of information (the traditional commercial bank approach), both for self-selection of borrowers and for repayments. No one knows which of the following elements accounts for the success of this approach, but successful programs have at least some of the following elements:

- The village head must sign applications. This makes the loan a public act and creates a social obligation to repay. A cosigner, usually the applicant's spouse, also must sign;
- Initial loans are small, but future loans are larger if loan repayment is prompt (this appears to be a strong motivator);
- Forced savings (required at BPD) are forfeited if borrowers fail to pay on time;
- BRI requires collateral (this has a psychological effect only; BRI has no means to collect in case of default); and

- BRI loan managers are taught to make quick on-site appraisals of the borrowers' business capability.

Methodological variants of BRI and BPD allow them to provide services that motivate repayment and that their customers want at low cost.

VOLUNTARY SAVINGS

The BRI and BPD experiences support the theory that microenterprise credit needs can be satisfied by funds raised from the sector itself. Reflecting services that clients want, BRI offers SIMPEDES — a passbook savings instrument with no minimum balance, unlimited withdrawals, and interest rates close to those available to larger savers at commercial banks. BRI has found that savings services reach many more people than credit services by a factor approaching four to one; total savings at BRI now exceed loans. BPD institutions have only recently begun to offer similar voluntary savings services; the results have been positive. Deposit taking does raise more complex issues, however. Savings generated must be placed into income-earning assets quickly, to cover the costs of generating them. As savings increase, so will pressure to make loans. This pressure can easily be relieved by making larger loans; the danger is that this may push systems to make riskier loans or serve better-off clients. The Government of Indonesia (GOI) will have to maintain a close watch in the coming years to ensure that these financial institutions remain solvent and that they continue to provide services for the smallest borrowers and savers.

VILLAGE UNITS

The BRI system and BPD systems are made up of individual units, each operating as profit centers, held together by a supervisory structure that sets policy, monitors performance, and provides training. The key to the financial self-sufficiency of these systems is the cost and return structure the individual units are able to achieve. Costs are kept low by the methods previously mentioned; however, the institutions' capital bases are quite different. For example, KURKs (units in East Java's BPD system) are highly capitalized (equity has been built up through years of retained earnings); equity represents more than one-half of loans outstanding. The large equity holdings reduce the average cost of capital and have made the KURKs extremely profitable. This profitability will diminish as start-up subsidies are removed and competition emerges. BRI's costs are higher, and Unit Desas lend mainly from savings collected, not retained equity. For other countries, however, it is astonishing enough to discover that a system based on loans of $5-$300 can be highly profitable.

SUPERVISION AND OWNERSHIP

Most of the differences in performance and operation of the BRI and BPD units are due to differences in supervisory structure and ownership and the incentives inherent within these structures. The Indonesia experience has shown that the financial centers will not perform to capacity without a vertical superstructure that can induce the individual units to manage their operations well. BRI has been particularly successful because its Unit Desas are run as individual profit centers. Managers of the units have incentives and the ability to manage well: they receive bonuses for growth and profitability, can

set policies, incorporate lessons learned, and are free from many political pressures. The BPD systems have more complicated ownership and supervision structures; a serious problem is the separation of policy decisions from monitoring and supervision. In East and Central Java, the systems are owned by the provincial government. In Bali, units are owned by local governments. The BPDs have no direct stake in the systems and do not benefit financially from good performance by the systems and their units. They also lack the authority to implement their recommendations. Profits are so high that the costs of mismanagement are not readily seen, but the central bank of Indonesia is aware of the problem and is taking steps to provide incentives for needed restructuring of ownership and supervision.

ROLE OF GOVERNMENT AND DONORS

The GOI fostered the development of these systems in two essential ways. First, it created the policy conditions that allowed these institutions to develop. Most important, the GOI enabled the systems to charge cost-covering rates on loans and offer rates to savers sufficient to attract deposits, and did not limit the activities these systems could undertake. This latitude has allowed the institutions to learn through experimentation. Second, the GOI has actively sponsored the systems. During the past two decades, there has been continued high-level interaction between financial market policy makers and the microenterprise finance institutions. The synergy created by this interaction is one reason that a complex industry providing financial services to the poor is emerging in Indonesia. Constrained funding in the 1970s caused the GOI to develop systems that would stand on their own, rather than depend on a steady stream of subsidies to the poor. Through trial and error, Indonesia has developed the profitable systems in place today. Indonesia has benefited from continuity in the high-level technical assistance provided by USAID and the World Bank. Crucial principles that the advisors have successfully championed include interest rate deregulation, full-cost pricing, financial self-sufficiency of institutions, nontargeting of credit, and, most recently, the importance of voluntary savings. These principles have been supported by inputs of funds for capitalization, staff training, and physical plant. The technical assistance in development of the BPD and BRI systems is an excellent example of the way policy dialogue should be carried out and the potential benefits of linking policy dialogue and project activities.

CONCLUSIONS

One can draw many valuable conclusions from the lessons of the BPD and BRI systems of Indonesia. Among the most important is the fact that self-sustaining financial services can be provided to individual microentrepreneurs without group mechanisms. Lending to the poor can be financed by savings from the same communities, provided that savings services reflect the needs of the customers. The poor are willing to pay the full costs of small-scale borrowing, provided that appropriate incentives exist. Similarly, the financial institutions must have incentives to encourage good management. Finally, donors and governments can successfully link policy dialogue and project activities.

CREDIT UNIONS: A FORMAL SECTOR ALTERNATIVE FOR FINANCING MICROENTERPRISE DEVELOPMENT

GEMINI Working Paper No. 22

John Magill
September 1991

The purpose of this paper is to introduce credit unions to enterprise development professionals who have not had extensive contact with credit unions in developing countries. Although credit unions provide financial services to a significant number of micro- and small-scale enterprises worldwide, they have seldom been carefully investigated or discussed as providers of financial services to MSEs. Although this paper raises more questions than it answers, it hopes to foster a discussion that will lead to a more synergistic relationship between the credit union system and other members of the small-scale enterprise development community.

ORGANIZATION OF CREDIT UNIONS

Credit unions are legally constituted financial institutions that provide basic financial services (savings and credit) for rural and urban citizens who cannot obtain these services through the full-service banking system. They are run on basic cooperative principles: the members are the sole owners of the institution, each possessing one vote in the organization. During most of their history, credit unions have been limited to basic savings and loan services; membership is typically restricted to people known by other members of the group, in order to reduce credit risks and provide peer pressure incentives for loan repayment. Typically, members are required to establish and maintain a regular savings program before they become eligible for a loan. These savings requirements and character checks — together with a diverse loan portfolio, low-cost service delivery mechanisms, and minimalist credit — allow credit unions to manage risk effectively and serve their clients without external involvement. There is an extensive support network for credit unions in developing countries nationally, regionally, and worldwide. These organizations provide the support that has permitted the credit union movement to grow to its present dimensions. In the latter half of the twentieth century, credit unions in industrialized countries have evolved from strictly savings and loan providers into full-scale financial institutions. This transformation has not yet occurred in developing countries; credit unions remain small, with a narrowly defined membership base and limited services — for example, many credit unions may not offer checking accounts.

STRENGTHS AND WEAKNESSES OF CREDIT UNIONS

The principle strength of credit unions is that they operate on self-generated capital, independent of government or donor subsidies. They are well established and target the group that commercial banks typically avoid — small savers and borrowers. There are an estimated 17,000 credit unions in the developing world, serving 8.7 million members and holding $1.8 billion in savings and $1.4 billion in outstanding loans. The author found that 10-20 percent of credit union loans were made to MSEs, and

calculated that 850,000-1.7 million microentrepreneurs currently have $150 million-$300 million in loans from credit unions. This is a significant number of small business recipients; the credit union tactics that permit low-cost delivery of financial services are clearly appropriate methods for MSE programs to emulate.

A principal weakness of the credit union system is a lack of modern incentives for savings mobilization. As a cooperative organization, savings were originally made in the form of purchases of shares in the credit union; these could be redeemed only when the member withdrew from the credit union. Dividends, rather than interest, were paid annually on these shares; these returns usually failed to compensate for inflation rates. This requirement transformed the savings mechanism from a service to an added cost in securing a loan. Credit unions in developed countries have already changed to more open forms of savings, but credit unions in developing countries have yet to complete this modification. This lack of savings restricts the amount of funds available for loans; frequently, credit rationing and queuing are the result. In addition, credit unions lack a modern growth- and service-oriented philosophy. This not only discourages new membership — it also hampers the development and expansion of financial products and services.

POTENTIAL ROLES FOR CREDIT UNIONS IN SMALL-SCALE ENTERPRISE LENDING

Three potential roles for credit unions in small-scale enterprise lending are to continue their existing role, adopt a formal financial system role, and serve as a model for MSE programs.

With little outside help, credit unions can continue to serve microentrepreneurs by using their proven methods of lending, but they can widen their MSE base only by expanding their membership. This will occur if marketing capabilities of credit unions improve; they must adjust their services to reflect the needs of current and potential individual members as well as the needs within the microenterprise niche. Appropriate services include a broader range of savings and loan services (such as long-term savings instruments, easy withdrawals in short-term accounts, open-end credit, and variable loan terms), and quasi-transaction loan and share draft accounts. In addition, the entire credit union system needs to be strengthened, particularly in internal operations and procedures; delinquency reporting; and improvement of supervision, regulation, and monitoring systems. All these changes require a growth mentality and progressive vision that most credit unions currently lack.

A second possibility is for credit unions to adopt a financial systems role. This would allow credit unions to fill the existing gaps in financial services available to small enterprises. Credit unions might be a more successful target than commercial banks for graduates of specialized MSE programs. Or credit unions could develop financial partnerships with specialized microenterprise programs. Clients of MSE programs could become members of a local credit union, with the credit unions providing savings and loan services and the programs providing complementary training and technical assistance services. However, credit unions must be careful to maintain the precepts responsible for their success: lending based on local savings mobilization and a knowledge of the borrower's history. A final option for credit unions within the financial system is as a broker of microenterprise funds — managing donor-provided funds or retailing other credit funds. This approach is being explored in Ecuador; the government is using credit unions as a credit delivery mechanism for a small enterprise project financed by the regional development bank.

Finally, credit unions can serve as a model for future MSE programs. Credit unions have significant experience relevant to the MSE community, including character-based lending, minimalist credit programs, risk management, savings mobilization, low-cost service delivery mechanisms, financial system development, portfolio management, operational management systems, and relations with donor agencies. MSE programs that have adopted these techniques have yielded successful results.

STEPS TO INCREASE CREDIT UNION INVOLVEMENT IN THE MSE SECTOR

An important step in improving credit union service to MSEs is helping existing credit unions grow and modify historic policies. This involves more than fostering a growth mentality; impediments to expansion must be removed. The most significant need is for increased liquidity; greater savings mobilization will deepen credit unions and allow them to abandon rationing systems and queuing, thereby improving service to existing and potential clients — both MSEs and individuals. Modifications that will address this need include identifying and resolving regulatory constraints, developing realistic financial and credit policies (and the discipline to enforce them), and initiating new services, such as a greater variety of savings and loan instruments, as well as share and loan drafts. A reform package addressing these needs and providing effective technical assistance programs to help credit unions adopt new approaches and services is essential if the credit union movements are to reach their potential.

There are many gaps in our understanding of the potential ability of credit unions to serve the microenterprise sector. Credit unions must conduct customer and market analyses in order to plan and develop financial services that better meet the needs of this sector. Furthermore, the role of financial intermediation in the credit union system is neither well documented nor well understood. A combination of research activities and pilot projects will foster new savings strategies that can support a more dynamic growth in the system. There should be a greater effort toward identifying potential relationships between credit unions and other MSE programs. Finally, credit unions lack reliable data on the numbers, amounts, and nature of MSE loan activities. If credit unions wish to become active in small enterprise lending, they must develop reliable and informative statistics that describe their role and importance in this sector.

PRINCIPAL LESSONS OF CREDIT UNIONS

The credit union experience supports the theory that local savings mobilization can play a significant role in development. However, this task implies fiduciary responsibility and the need for adequate regulation and supervision. Experience has also shown that benefits are a function of scale; often credit union membership is so narrowly defined that credit unions suffer from a lack of capital and are forced to ration credit. Credit unions have acted as a conduit for externally provided resources, but the study suggests that no more than 25 percent of a credit union's loan portfolio should come from external funding. The study notes that dependence on donor agency support can be destabilizing and can constrain institutional growth because it allows credit unions to avoid making needed adjustments in savings and loan policies and interest rates, reducing their ability to capture savings. Finally, the study observes that successful financial intermediation requires a diverse client base to maintain liquidity. This client base should be composed of net savers and net borrowers with varied cyclical requirements.

STEPS TO THE CREATION OF A VIABLE FINANCIAL INSTITUTION FOR MICROENTERPRISE DEVELOPMENT IN THE PHILIPPINES: NOTES ON A PROCESS FOR THE STAFF AND BOARD OF TULAY SA PAG-UNLAD, INC.

GEMINI Working Paper No. 24

Doug Salloum
Nan Borton
November 1991

This paper considers the steps Tulay sa Pag-Unlad, Inc. (TSPI), a nongovernmental organization in the Philippines, should take to transform itself into a formal financial institution providing financial services for small enterprises. The paper does not seek to resolve the many relevant issues it raises. Instead, it outlines the questions the agency and its board of directors must consider to make wise and fully informed decisions at every point in the complex and important process of determining whether to become a formal financial organization.

STEP 1: ANALYZING THE VISION, THE PROBLEM, THE BENEFITS, AND THE COSTS

TSPI is an organization with a clear, defining vision: to touch the lives of the poor by aiding small enterprise development and to develop values through training. However, TSPI can reach only a tiny and static portion of the swelling ranks of the poor, because of its dependence on limited funding from donors with shifting priorities. The agency has several options: to become an intermediary for banks, to find another dependable source of income, to act as a conduit for the Government of the Philippines soft loan handling, to continue to seek concessional flows of foreign assistance, or to become a formal financial institution in its own right. This study assumes that the last option might solve TSPI's major financing problems. After clarifying the TSPI vision, looking at constraints, and identifying options open to TSPI, the next step is to hold a brainstorming session to identify all relevant issues that will arise as changes are planned. These issues include service and scale (What alternatives exist to continue to serve the poor or to expand services to them?), credibility and external judgement (Is TSPI good enough at lending to put itself forward as a credible investment for others to make?), control (Is TSPI willing to allow its lending and investment policies to be controlled by investors whose primary interest is financial success?), commercial practice (What will be the ethics code of the bank?), and profit and cost (Should TSPI be less selective in who it lends to in order to reach a profitable volume?).

STEP 2: PREFEASIBILITY STUDY

The prefeasibility study should be carried out by a staff person or local consultant working closely with operating and management staff of TSPI. It will take 3-4 months to prepare a useful study; legal and accounting advice will be needed. The form and detail of the study must attract and hold the attention of potential investors, lenders, and partners; this requires a different level of professionalism from that expected by donors.

The prefeasibility study should include a narrative section describing TSPI's current clients, products and services, and delivery mechanisms, as well as the proposed changes, the challenges the changes will create, and options to surmount these problems. These questions should be answered in as much detail as possible; TSPI should not assume that there is widespread understanding of or experience with the microenterprise or informal sector. Providing clear answers to the above questions means the reader is more likely to be able to understand the costs of providing services to the clients, the income to be earned from this activity, and the conclusions of the prefeasibility study.

The study should also include a financial model (summarized in the narrative), developed on Lotus 1-2-3 or another commonly used computer modeling system, to provide a pro forma income statement and balance sheet for the proposed institution over at least 4-5 years (the amount of time the authors consider necessary to reach profitability). The basic model should start with a forecast for the outstanding loan portfolio and deposits built up over time. By completing these two basic forecasts, TSPI will also be forecasting most of the other income statement and balance sheet items, such as fixed assets, deposit interest expense, and loan interest income. Once these forecasts have been made, administrative staff expenses, reserve requirements, tax formulas, general expenses, and other debt and equity may be added to the model. All pro forma financial statements must consistently use the same model and must be linked. A change in the value of the loans outstanding on the balance sheet, for example, must result in a change on the interest income on the income statement.

The proposed institution has four options in its financial structure: conversion into a formal sector for-profit bank (the PRODEM/BancoSol solution), incorporation and start-up of a new bank, purchase of an existing bank and conversion of its activities from larger savings and credit services to microfinancial services, or the addition of microfinancial service capabilities to an existing bank (closer to the BRI Unit Desa model). For each structural option considered by TSPI, a separate model should be constructed.

In addition, TSPI must consider different operational options. TSPI must determine how it will organize its lending activities in the future (if they will be different from current procedures) and how it will carry out savings collection. Once these operating characteristics have been designed, they must be summarized as a collection of assumptions and variables and applied to each structural model. Planners must determine the sensitivity of each structural model to variables such as interest rates, loan sizes and terms, and the average loan portfolio managed per field worker. Answering these questions will determine an appropriate interest rate structure, funding required to reach profitability, and the optimal debt-equity relationship. At this point, TSPI staff and board members will have what they need to decide on the structural option that is most feasible and to begin discussions with potential partners, investors, and lenders.

STEP 3: PRELIMINARY DISCUSSIONS

After the prefeasibility study has been completed and the Board of Directors has a preferred structure in mind, discussions with potential investors, lenders, and partners may begin. The reactions of these parties will allow TSPI to test the feasibility of the proposal and revise it. It should be recognized that these discussions may represent the beginning of a negotiating process; investor or lender objections at this point should be seen as constructive, not insurmountable.

Potential investors include local church members and institutions, local banks, the Asian Development Bank, and the Calmeadow Foundation. Equity requirements are new to TSPI; the NGO

will have to take time to understand the perspective and concerns of investors. Questions to be answered include whether the investor would underwrite the development costs of the proposed institution, what risks are considered unacceptable, whether the investor would provide technical or managerial assistance, and whether the investor wishes to be represented on the board. The Central Bank may be the most appropriate lender for TSPI initially; the agency should learn about the procedures and requirements for loans from this source. Discussions with commercial lenders may be premature until the proposed institution has adequate equity and profits to be a good credit risk. Nevertheless, it would not hurt to begin to develop a relationship with local and foreign sources of loans to learn about terms and conditions for future reference. Existing Philippine banks may also be cultivated as potential partners in the venture. The proposed institution might take advantage of the Philippine law requiring banks to lend to the micro- and small-scale enterprise sector; TSPI should particularly seek partners with technical and managerial experience in financial institutions. TSPI must also negotiate with its existing donors; the structural changes proposed may need their approval. Finally, lawyers and accountants familiar with financial institution incorporation and approval can advise TSPI on when and how to negotiate with the Superintendent of Banking.

STEP 4: CREATION AND FUNDING OF A PROJECT MANAGEMENT TEAM

The creation of a sophisticated new financial institution will require single-minded dedication, professional skills, and adequate funding. A project management team should be created to handle this process. The key person on the team should be someone with the potential to assume a major financial position in the proposed institution — perhaps the same person responsible for the prefeasibility study. Sufficient funding to support this activity must be committed before the team is authorized to begin work; the time and expense involved must not be underestimated. The whole process — from the time the Board of Directors gives the authorization to proceed with the development of the new institution until its incorporation or start-up — may exceed one year.

The feasibility study will form the basis for a document to submit to the Superintendent of Banking for approval to operate the new financial organization and a prospectus for investors and lenders. The work involved will depend on the structural option to be implemented, but will likely include five steps. The prefeasibility study forms the basis for the final study; it should include the background and vision of TSPI, a complete market study for the proposed venture, a description of the financial industry in the Philippines, a financial plan, a risk analysis, and a summary of the legal and regulatory features of the proposed plan of action. Financing must be secured and documented, and the structure of the Board of Directors must be designed. The new institution will need incorporation documents and must satisfy regulatory requirements. Finally, the existing agency must be converted or upgraded. If TSPI plans to become a for-profit institution, it must improve its standards of accounting, monitoring, and reporting within the organization to meet the information requirements of the investors and the Superintendent of Banking. If TSPI is not going to convert itself into a bank or some other formal sector institution, there will still be a great deal of design work to be done on systems, personnel policies, and procedures for the new entity.

In spite of the tremendous amount of work required to transform TSPI into a formal sector financial institution, the example of PRODEM/BancoSol should encourage TSPI staff and Board members to consider the effort.

VILLAGE BANKING: A CROSS-COUNTRY STUDY OF A COMMUNITY-BASED LENDING METHODOLOGY

GEMINI Working Paper No. 25

Sharon L. Holt
December 1991

This study was funded by the World Bank and the U.S. Agency for International Development to document and assess village banking projects as implemented by five nongovernmental organizations in seven countries. The objectives of the paper were to:

- Present the village banking (VB) model as developed by the Foundation for International Community Assistance (FINCA), and describe various adaptations;
- Document achievements to date;
- Point out problems and prospects VB programs face as they mature; and
- Derive conclusions and future policy direction.

The projects studied were Freedom From Hunger (FFH)/Thailand, FFH/Ghana, FFH/Mali, Catholic Relief Services (CRS)/Thailand, CARE/Guatemala, FINCA/Costa Rica, FINCA/Northern Mexico, and Save the Children/El Salvador.

THE VILLAGE BANKING MODEL

Village banks are community-managed credit and savings associations. The social objectives of village banks are to:

- Target and empower the poor (especially women) and help them move out of poverty;
- Create support groups; and
- Build capacity to manage participatory local organizations and increase community ability to invest in community projects.

The use of solidarity lending, in which the group collectively guarantees each individual's loan, eliminates the need for collateral and minimizes transaction costs. Most village banks have 30-50 members, although in practice the size has varied from 5 participants to 163. A sponsoring NGO supplies seed money for the loans and provides a promoter who aids the initial organization of the village bank, promotes savings mobilization, and trains the group to use the VB model. Once the village bank is organized and trained (four weeks) the elected bank leaders take over village bank management, and the promoter returns periodically to collect payments and monitor loans.

Although village banks may be adapted to local conditions, the most basic model assumes $50 initial loans, repaid at weekly meetings for four months, at market interest rates. The model assumes 20 percent of each loan will be saved; upon successful loan repayment a second loan, equal to the previous loan amount plus the cumulative amount saved by the individual, may be acquired. This cycle continues for three years, at which time the sponsoring agency will have been repaid and can invest in another village bank, and participants will have saved $300 and will graduate from the program with a successful credit history. The cycle may be repeated. During the cycle, the funds are divided into an external account and an internal account. The loan money that comes from and is repaid to the sponsoring organization makes up the external account, which is overseen by the promoter. The internal account is fully managed by the village bank and is composed exclusively of local funds, including members' savings, interest earned from loans made with members' savings, fines paid by members, and installment payments to the external account. Village banks should establish relationships and open accounts with the closest regional bank to store these funds; otherwise, the money must be secured in the village. The external account funds act as a catalyst to stimulate the development of the internal account and of members' personal savings. As savings grow, members may decide to use this money for loans to members or nonmembers, collective income-generating projects, or community projects.

This model has been adapted to reflect variations in local contexts, the age of the projects, and the complexity of microenterprise lending. Most adaptations have been at the institutional level, although the financial model has proved flexible as well. CARE/Guatemala and FFH/Thailand have extended repayment to six months, reflecting the agricultural seasons. FINCA/Costa Rica also funds longer-term agricultural loans, community projects, and loans up to $2,000. Save the Children/El Salvador and CRS/Thailand have opted for noncommercial interest rates. Institutional adaptations include the classification of village banks at different levels of sophistication (FINCA/Costa Rica), the use of local NGOs in addition to the sponsoring agency (CRS/Thailand and FFH/Mali), collaboration with a commercial bank or banks (FFH/Thailand and CARE/Guatemala), and the addition of technical assistance or education components (FFH, CARE, and FINCA/Costa Rica).

The more successful village banks reviewed included some of the following characteristics: heavy investment in initial VB training and administrative oversight (early projects in El Salvador, Costa Rica, and Northern Mexico lacked the start-up training period and experienced promoters); use of market interest rates (Save the Children/El Salvador subsidizes interest rates and has the lowest external account repayment rate at 52 percent); formal, written membership requirements and screening measures; strong community leaders who can diplomatically settle disputes; significant savings mobilization (FINCA/Costa Rica); and stable populations where members have established relationships (FINCA/Northern Mexico and Save the Children/El Salvador have poor repayment histories in neighborhoods with transitory populations). Overall, the VB model has been successful in achieving its goals of extending microcredit programs to the poor, empowering women, and creating participatory support groups that invest in community projects.

Some weaknesses of the programs visited included a lack of consistent accounting, particularly in monitoring internal accounts, lack of graduation, and lack of self-sufficiency. Internal accounts have proved far more complex to monitor than had been expected. Individual VB policies and lax external supervision have resulted in financial mismanagement in FINCA/Northern Mexico and CRS/Thailand, whereas programs with tight controls have hardly lent internal accounts at all (CARE/Guatemala and FFH/Thailand). These experiences strongly suggest that the risk management mechanisms that work in the external accounts are less applicable to a village bank's internal financial transactions. In addition, graduation of individual clients has been rare. In a study of 10 microenterprise programs in Latin America that identified graduation as a primary goal, less than 2 percent of the clients had moved up to

commercial bank loans. The graduation of entire village banks to the commercial level may be a more realistic option, although none has taken this step to date.

Finally, no village bank visited as part of this study had become financially self-sufficient. Self-sufficiency is defined as the ability to cover all operating costs (including loan loss reserves) and the cost of funds and inflation through fees and interest charges. Factors that contribute to VB dependencies include:

- A village bank's small size make economies of scale difficult to achieve; and
- Similar productive activities of borrowers create periodic illiquidity and minimize VB ability to diversify risks.

Nor were sponsoring agencies visited self-sufficient. The VB manual lacks provisions for making these NGOs permanent intermediaries. Sponsors' ready access to grants reduces their need to seek loans from commercial sources, and most are reluctant to charge the high interest rates necessary to cover their costs. Apex institutions, composed of representatives from the local NGOs and the client village banks, may be a self-sufficient possibility — CRS Thailand and FINCA/Costa Rica are taking steps toward that goal. Apex institutions could provide funds to village banks or absorb excess savings and offer supervisory and training services.

CONCLUSIONS

Village banks show promise in reaching poor populations, particularly women, that are traditionally excluded from more formal financial services projects. VB projects overall are successful at mobilizing local resources, including members' savings and human resources (labor). Established village banks have improved community participation and management and fostered investment in the public good and cooperative ventures. Village banks have maintained high repayment rates (90 percent average — 98 percent if Save the Children/El Salvador is excluded) in their external accounts.

However, village banks are not self-sufficient, and few clients graduate to formal sources of credit after reaching the original ceiling of $300. Costa Rican village banks have successfully raised the limit to $2,000, and this flexibility is now being applied in other countries as well. Since the time of this study, village banks have modified their goal of graduating individuals, moving instead toward upgrading the activities of individual village banks. This study finds that VB methodology lacks adequate mechanisms to effectively monitor and use the internal accounts; also, since the time of this study steps have been taken to improve auditing of these accounts. Additional weaknesses of the model include the fact that turnover of VB members impedes steady growth of savings and loans and complicates VB management. Village banks require considerable training, supervision, and monitoring, even after the initial organization period. To improve financial sustainability, VB programs must increase interest rates, improve cost accounting, and find nondonor sources of funds.

DYNAMICS OF SMALL- AND MICRO-SCALE ENTERPRISES AND THE EVOLVING ROLE OF FINANCE

GEMINI Working Paper No. 26[1]

Carl Liedholm
December 1991

This paper examines the dynamics of micro- and small-scale manufacturing enterprises in developing countries, particularly in Africa, and the evolving role of finance in that process. The study of small-enterprise dynamics, which include the creation, evolution, and disappearance or death of firms, as well as how these patterns vary due to environment and age, provides insight into desirable patterns of growth in manufacturing output and employment. This paper outlines what is known about small-enterprise dynamics, examines the supply and demand of financial services to this economic sector, and discusses the policy implications of these findings.

SMALL-ENTERPRISE DYNAMICS

The few dynamic analyses indicate that the absolute number of small- and micro-scale enterprises is increasing in virtually all developing countries. Growth in number of firms appears to be highest in enterprises with 2-49 workers, and lowest in one-person enterprises. In some countries, the number of one-person firms is declining. When examined on a micro-level, the study found a high turnover of firms; preliminary evidence from Africa indicates that the annual birth rate of microenterprises is typically close to 10 percent. Studies in Kenya and Swaziland found that only about half of the microenterprise deaths were due to business failures; other prominent causes of closure included personal reasons, government intervention, and better economic options. Closure rates are highest in the first three years; after this period an enterprise's chances of survival increase markedly.

The following picture of the life cycle of a typical microenterprise has emerged. The firm originates as a tiny enterprise — typically a one-person operation — with three years of struggle, a high probability of failure, and little growth. If it survives these first three years, however, it is likely to experience a sudden spurt of growth that will typically project it into one of the larger-size categories of microenterprises. The growth rates for the surviving manufacturing microenterprises are extremely high; however, few of these microenterprises ultimately graduate or transform themselves into more complex small and medium enterprises. Of the small and medium manufacturing firms studied, most did not graduate from the microenterprise seedbed, but instead started with more than 10 employees. There are indicators of regional differences in the graduation rates of microenterprises that grow to small and medium levels, but the data are not comparable. Of the firms surveyed, 57 percent of the Asian firms and 50 percent of the Latin American firms started at the microenterprise level. Less than 30 percent of the microenterprises in Africa grew to larger levels. An important issue is to what extent inadequate access to finance, informal or formal, may have impeded this graduation process.

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[1] This Working Paper is also applicable under Action Research Program I: Growth and Dynamics.

EVOLVING DEMAND FOR FINANCE

The financial needs of micro- and small-scale enterprises change as these firms develop; in particular, the relative importance of fixed and working capital and the necessary amount of each varies as the firms age and grow. At their inception, the overall capital needs of microenterprises in the countries studied seem modest, ranging from a low of $63 in Sierra Leone to a high of $839 in Bangladesh. Yet, in relation to average income, initial capital barrier is significant (in Bangladesh, for example, the overall initial capital requirement is almost six times the country's per capita income). The majority of this initial investment is typically used for fixed rather than working capital. MSEs often underestimate their need for working capital; once microenterprises begin to produce and expand, the demand for working capital increases, both in absolute terms and relative to fixed capital. Demand for working capital grows as firms expand production and fill market niches. Owners of MSEs universally cite lack of operating funds as their most common problem. Widespread excess capacity among MSEs (indicating that the firms could produce more if only they could afford the inputs) is a symptom of the problem of a lack of working capital. However, working capital shortages are often the symptom of some other problem, such as managerial inefficiencies, a flaw in product design or sales, or transportation of inputs and products. If a firm is transformed into a more complex, modern small-scale enterprise, one can expect an increase in demand for fixed capital as well as working capital. In a study in Ghana, lack of credit for equipment was the most frequently cited future expansion constraint for firms with 10-20 workers.

EVOLVING SUPPLY OF FINANCE

The sources of finance available to a micro- or small-scale enterprise also change as the enterprise evolves. At its inception, the microenterprise's primary financial need is for fixed capital, which is almost entirely obtained (in over 93 percent of the cases studied worldwide) from personal savings, internal family sources, and friends. As the firm ages and its reputation grows, external sources of informal finance begin to emerge to satisfy the demand for working capital. Down payments from customers or raw material advances are frequently the first source to appear, followed by credit from suppliers and professional moneylenders. The use of these sources of credit varies regionally and by subsector. In Egypt, mat making is 100 percent prepaid and metal shop work is 43 percent prepaid; subcontracting and supplying inputs is more common in Asia than Africa. Use of informal money lenders is much rarer than is generally believed. Less than 1 percent of start-up capital comes from money lenders in Haiti and Jamaica; only 1.7 percent of MSEs in Haiti and 3.9 percent in Sierra Leon used this source to expand production. Typically, moneylenders supply working capital loans for a few days, at interest rates which can exceed 100 percent. Once the reputation of the firm is established, it usually remains the client of that moneylender for a long period. These are all primarily short-run sources of funds used for working capital needs. If the microenterprise grows larger and transforms itself into a modern small or medium enterprise, however, its need for both fixed and working capital greatly expands. Supplier credit and subcontracting are the two most common informal sources of fixed capital; these sources become available when a microenterprise becomes well established and develops a good payment record. Once a firm is well established, with assets and a credit history, the firm may begin to have increased access to the formal financial market.

IMPLICATIONS FOR FINANCIAL POLICY

Several related lessons emerge from this study of the dynamics of microenterprise development and the need for financial services. It is clear that the magnitude and composition of microenterprise demand for finance and its access to sources of finance vary significantly over its life cycle. One must be aware of these fluctuations to determine the appropriate volume and type of financial resources needed by these enterprises. It is also clear that the existing sources of financial services for MSEs (though surprisingly varied) are insufficient to meet this sector's demand. The disparate and segregated nature of the financial services offered to microentrepreneurs informally impedes their growth. When financial services such as credit, savings, deposits, and checking accounts are integrated in one unit, additional information is generated for lenders on the entrepreneur's evolving financial management ability — one element that contributes to the entrepreneur's growing reputation. Furthermore, the proliferation of minimalist credit programs such as the Grameen Bank in Bangladesh and the BKK in Indonesia indicate that the existing financial system cannot satisfy the working capital demands of evolving MSEs. Policy makers must consider how these promising schemes can be scaled up to reach larger numbers of micro- and small-scale enterprises in these countries, as well as the replicability of these successes elsewhere. One promising path is a financial systems approach that aims for financial viability of the lending institutions and stresses the importance of savings. Finally, informal financial sources are not particularly well suited to meeting the evolving fixed capital needs of microenterprises. As firms grow and attempt to transform themselves into modern small-scale enterprises, informal lenders become less able or inclined to provide the larger sums for the longer time periods MSEs need as they grow.

There are several proposals on how to overcome this obstacle of inadequate financial services for micro- and small-scale enterprises. One approach is to provide technical assistance to MSEs to teach them how to obtain loans from formal financial institutions. A second approach is to provide technical assistance instead to the commercial banks and similar financial institutions on how to lend effectively to MSEs. Lending institutions, however, are not going to willingly engage in a learning-by-doing process unless initial high costs can be reduced. A loan guarantee scheme that provides banks with declining guarantees over time might be an appropriate incentive to encourage banks to try serving the MSE market. A third approach would be to graduate or convert an entire microenterprise lending program or scheme into a financially self-sufficient institution providing a complete array of financial services to a larger and broader group of microenterprises as well as to modern small-scale enterprises. These three approaches are not mutually exclusive; indeed, all may be needed to ensure that the financial system does not impede the evolution of micro- and small-scale firms in developing countries.

Interest rate deregulation is critical to the development of adequate financial services for microentrepreneurs. If microenterprise lending programs are to be financially self-sufficient, they must be able to charge market (cost-covering) interest rates. In addition, deposit-taking regulations must be reviewed; savings mobilization is an irreplaceable step toward deepening financial services. Finally, policies must encourage banks to serve MSEs and strengthen the formal financial institution's links to the informal sources in order to satisfy the needs of evolving MSEs. It is only when the informal and formal financial markets become better integrated and more unfettered that the evolving financial requirements of small enterprise will be more completely met.

POVERTY LENDING AND MICROENTERPRISE DEVELOPMENT: A CLARIFICATION OF THE ISSUES

GEMINI Working Paper No. 30

Mohini Malhotra
May 1992

This paper attempts to demystify the issues in the controversy surrounding poverty lending as an approach to microenterprise development. It explores whether assisting the poorest and achieving financial sustainability are contradictory objectives. Its fundamental purpose is to clarify, rather than resolve, poverty lending issues that provoke debate and discussion in the microenterprise field. It argues that the shift from the earlier debate of whom to target to the current discussion of how to better reach the poor represents an important move from ideology-based polarization to more pragmatic solution-seeking. As such, it argues that the goals of financial sustainability and poverty alleviation are neither contradictory goals nor trade-offs, provided sound financial principles and a market orientation as advocated by the financial systems approach are embodied in microenterprise finance programs.

POVERTY LENDING AND FINANCIAL SYSTEMS APPROACHES

The paper looks at the way poverty lending (PL) and financial systems (FS) approaches are defined. Successful microenterprise finance programs that reach the very poor incorporate many of the principles of sound financial management advocated by the FS approach. The FS approach is defined by and advocates ideal financial management principles for programs to aspire to; admittedly, few programs reach the level of full self-sufficiency the approach aims for.

The PL approach argues that only the poorest of the poor should be targeted, to provide them with assistance that otherwise would bypass them. It assumes that broad target group definitions fail to extend benefits to the most marginal. The approach is motivated by equity concerns with how best to assist the poor and, in particular, the poorest. Lending is considered only one of many variables that can be used to ameliorate abject poverty. Most PL programs provide more than just financial intermediation. They provide credit and savings services with a big socioeconomic development "plus." Most PL programs have a loan ceiling to keep lending targeted to the poorest. In the best of systems, they are controlled by participants. PL programs typically graduate clients once they have reached the loan ceiling, in order to keep assistance targeted to the poorest.

The FS approach contends that a better way to meet the financial needs of the poor is through the development of viable financial institutions and the incorporation of microenterprise lending in the wider context of an improved financial system. A healthy financial system in which loans are demanded and repaid indicates that financial resources are contributing in some way to economic growth and, if the poor have access, to poverty reduction.

FS supporters recognize the multitude of constraints faced by the poor in developing countries but focuses on addressing one of them — a crippling lack of access to financial services. It advocates the development of viable financial intermediaries through the application of sound financial and management practices — streamlining procedures and being cost-effective. The FS approach treats microenterprises

as market-oriented endeavors and offers products with attributes clients want at prices that cover costs. It calls for full coverage of the institution's cost structure — operating costs, loan losses, cost of funds, and inflation — and for recovering these costs through fee and interest income. Savings are an integral feature of this approach, which considers savings mobilization as important a service to the poor as credit — and crucial in building self-sufficient financial intermediaries. Programs following this approach often operate with sufficient profitability to allow them to become financially self-sustaining within four to six years. To date, only the BRI of Indonesia is completely self-sufficient.

CHARACTERISTICS OF SUCCESSFUL PROGRAMS

Successful microenterprise financial programs are based on a similar premise: providing cost-effective sustainable financial services to poor microentrepreneurs. These prescriptions draw on the experience of the Grameen Bank of Bangladesh and BKK of Indonesia. Successful financial programs for microenterprises share many features:

- The successful few have been able to target a niche not served by traditional commercial lenders;

- They have learned to overcome the constraints of working with the traditional five 'c's of credit — character, collateral, capital, capacity, and conditions. Microenterprise lending programs focus on character, or "social equity," and capacity to absorb and repay the loan as the most important borrower characteristics;

- They have recognized the high transaction costs to both lenders and borrowers in the traditional commercial bank lending methodology, and have devised innovative solutions for reducing these costs;

- They have streamlined their activities to such a degree that the costs of lending are commensurate with the size of loans being made;

- Several have incorporated group formation as a program feature, particularly for the poorest clientele, such as that targeted by the Grameen Bank;

- They have expressed a commitment to the goal of financial sustainability and devised a plan for achieving it. Patten and Rosengard mention that an important factor contributing to BKK's success is that the system received donor support only after several years of operation; it did not have to be weaned away from dependence on donor funding;

- They devote attention to instilling financial discipline in borrowers;

- They no longer view borrowers as beneficiaries but as clients. More market- and marketing-oriented programs are concerned about how best to meet their clients' needs. They view their own survival in the market as dependent on how well they perform in this respect;

- They have devised innovative mechanisms to deter leakages outside the target clientele and to keep sights focused on the poor. Stringent requirements such as enforced weekly meetings, small loan sizes, interest rates higher than those charged by commercial banks, and mandatory participation in a larger social development agenda, as stipulated in the 16

Grameen Principles, weed out participation by the non-needy. BKK's policy of establishing loan ceilings for a certain portion of the portfolio ensures that the poorest will continue to be served and that the lending institution can have a sound, diversified portfolio made up of a range of loan sizes and borrowers;

- The successful ones operate in densely populated areas with relatively well-developed physical infrastructure. This has implications for reducing costs by serving relatively accessible clients; and

- They operate in relatively favorable policy environments. Both BKK and Grameen have evolved with much support and little interference from the governments of Indonesia and Bangladesh. BKK's program flourished under the Government of Indonesia's policy reform and economic liberalization measures, which led to the liberalization of the financial sector, removal of interest rate ceilings, and support of rural industries.

OPERATIONAL AND POLICY ISSUES IN MICROENTERPRISE FINANCE

- The restricted loan sizes used by many microenterprise lending programs limit investments to the most traditional and least profitable or productive activities. The limited growth potential of clients' enterprises restricts the growth potential of the lending institution, which scales up loan sizes to meet clients' expanding credit needs.

- Although the small size of activities financed leads to income increases, it does not generate new employment. Several PL practitioners question whether they should develop complementary programs to lend to larger enterprises with greater employment-generating potential.

- Poverty lending programs face a policy dilemma of whether to gradually give larger and longer loans to meet the growing needs of their clientele and diminish focus on the poorest or whether to target the poorest, even if it means that program graduates have no other mechanism to graduate to.

- The high costs associated with traditional PL programs may not permit a program to be large enough to have a significant impact on poverty; they may restrict it to serving a handful of borrowers.

- The few successful programs may not be replicable under different conditions. For example, Grameen's extensive branch network (400 in 1989) and close interaction with borrowers would be impossible or expensive in sparsely populated areas with underdeveloped infrastructure and transportation.

- Microenterprise practitioners differ on whether the costs of nonfinancial support services should be treated as a social investment in a poor population — as a subsidy — because no provision of financial services, however efficient, can cover these costs — or whether these are legitimate costs of lending to this population, without which borrowers could not borrow, and therefore should be treated as program costs, factored into full-cost pricing, and paid for by borrowers.

- Some question whether financial programs should incorporate nonfinancial support services provided by other development programs, such as education, health, family planning, and nutrition. The provision of multiple services may diffuse program attention and require a more diverse mix of management and personnel skills, thereby increasing costs. In addition, keeping costs of the financial and nonfinancial components separate and transparent requires more complex accounting.

- PL programs are often subsidized with the justification of the long-term social and economic benefits to be generated from such assistance. It is questionable whether continued subsidization is a prerequisite to achieving these social benefits, or whether programs such as BKK have demonstrated otherwise.

- Although PL programs have begun to address program sustainability, most programs do not have adequate systems to assess their financial health. PL programs typically do not maintain transparent financial operations, which differentiate costs of lending and other operations. A clear plan for financing activities and a system of progressive cost recovery should be laid out at the outset.

CONCLUSIONS

The paper concludes that there is not necessarily a trade-off between financial sustainability and reaching the poorest. However, it does point out that the structural features of traditional approaches to serve poor entrepreneurs — high costs of lending exclusively to the most marginalized, unwillingness or inability to charge the interest rates necessary to cover costs, client graduation requirements, low loan ceilings, and the provision of financial and nonfinancial services — make sustainability a more elusive goal to achieve in the four- to six-year time frame within which it can happen.

THE SOLIDARITY GROUP EXPERIENCE

GEMINI Working Paper No. 31

Shari Barenbach
Diego Guzman
June 1992

This paper argues that the peer-group lending guarantee method has proven successful and replicable in diverse settings across the globe. The study examines group lending programs in Asia, Africa, and Latin America and contends that these efforts have been transformed from donor-oriented pilot projects to client-centered lending institutions. The paper explores the methodological frontiers and flexibility of peer-group lending, including the delivery of savings, training, and other client services. Finally, it examines how the experience of solidarity-group lending programs (SGPs) offers insight into several issues influencing the development field in general and microenterprise lending in particular.

The peer-group lending programs examined here aim to accomplish three principal goals: to provide services to the poor, attain financial self-sufficiency, and reach large numbers. By reaching a critical mass of clients, these programs can lower their per unit costs, diversify their risk, and provide financial services to the poor in a financially sustainable manner, thus achieving a significant development impact. The means to accomplish these goals are mutual guarantees, in which borrowers collectively guarantee one another's loans, management efficiency in the lender's operations, and lender responsiveness to market demands. Mutual guarantees deter loan defaults and lower the cost per borrower. Successful programs have also adopted a relentless commitment to management efficiency — testing, refining, and streamlining their credit delivery methods to obtain maximum results and sustainability. Sophisticated management information systems allow planners to track client and staff performance, limiting inefficiency and promptly attending delinquencies. Finally, to attract and maintain a large client base, programs are attuned to the preferences and needs of their clients, offering a package of credit delivery and elective training. These methods have the additional benefit of building mutual trust and support within communities, breaking historically dependent roles. The trust relationship that emerges through the collective guarantee establishes the foundation for the group to attain broader organizational and social objectives. The social objectives of mutual self-help and poverty alleviation remain fundamental to the broader goals of these peer-group lending schemes.

The study examines SGPs in Asia, Africa, and Latin America, noting the programs' clients, loan features, and financial performance. ACCION International in Latin America and the Grameen Bank of Bangladesh have pioneered the popularity of peer-group lending; today, solidarity-group lending schemes are used worldwide in 24 countries, serving more than 1 million microenterprise borrowers. The model is quite flexible: the South African Get Ahead Foundation has adapted the traditional African *stokvel* rotating savings programs to create similar group lending schemes. Although it is difficult to make comparisons between programs because of great variations in financial structures, political climates, and project goals, all draw on the same group lending techniques, have high repayment rates, and reach large numbers of people. In studies of its efforts in Bolivia, Guatemala, and Colombia, ACCION has found that its clients engage in manufacturing, equipment repair, restaurants, and street vending. Women make up on average 58 percent of the borrowers. There were almost 35,000 new borrowers in 1991, reflecting an average annual growth rate of 56 percent across the three countries. All of ACCION's programs charge positive real interest rates above commercial rates (15 percent in Colombia and Guatemala), yet the strong demand for these credit services suggests these interest rates are affordable, given the

KEYS TO SUCCESSFUL PEER-GROUP LENDING PROGRAMS

Client Population
- Must have ongoing business or prior experience
- In most settings, majority are women
- Mix of manufacturing, service, and trade

Group Self-Formation
- Groups select their own members and collectively guarantee group loans
- Three to ten members — one member per family
- Group leader selected by group

Decentralized Operations
- Extension staff work in communities
- Overcome cultural barriers to formal institutions
- Staff become knowledgeable about client's business environment

Appropriate Loan Sizes and Terms
- Loan amount and terms appropriate to client needs
- Loan size increases as business and client experience grows
- Terms range from quarterly to annual
- Training costs separate from financing costs to promote efficiency of service

Simple Loan Application and Rapid Review
- Application limited to basic information
- Standard project credit analysis not required
- Applications reviewed in 3-7 days for first-time loans, 1 day for subsequent loans

Interest Rates and Service Fees
- Interest charges supplemented with other fees
- Borrowing charges often exceed commercial rates, reflecting cost of small loans
- Total charges cover real lending costs

On-Time Repayment Requirements
- Incentives for on-time repayment and sanctions for delinquency
- Future loans pegged to group's repayment
- Up-to-date information systems alert staff to delinquencies

Credit is Linked to Savings and Other Financial Services
- Savings facilities are valued by group members
- Intragroup emergency funds serve as safety net for timely repayment
- Savings included within strategy for funds management

Cost-Effective Training and Organization Building
- Training builds on existing client skills
- Cost-effective and responsive training methods developed
- Self-help organizations address social and economic needs

Borrower-Lender Accountability and Mutual Respect
- Lender demonstrates borrower trust through solidarity-group operations
- Lender obliged to provide a service of value to borrowers
- Borrower loyalty and mutual accountability generated

productivity of the microenterprise borrowers. The default rate is less than 1 percent in all three countries. Average first loan sizes are $87 in Bolivia, $176 in Colombia, and $205 in Guatemala. The Grameen Bank has 947,195 members, of whom 92 percent are women. It operates 886 branches and has an outstanding portfolio of $46 million. Average loan size per borrower is $60; the default rate is less than 2 percent. GB actively promotes SGPs, publishing *Grameen Dialogue* to track organizations using GB methodology. This approach has been adapted in Africa in initiatives such as the People's Bank of Nigeria ($20.7 million to 240,000 clients) and Kenya PRIDE ($.75 million to 6,787 borrowers) in addition to the South African stokvel approach ($1.33 million to 7,525 borrowers).

INNOVATIONS IN THE SOLIDARITY GROUP METHODOLOGY

Innovations are vital for peer-group lending operations to improve management efficiency and to genuinely satisfy the needs for service among their clients. By constantly testing and adapting new methodologies, these programs can reach their broader development goals. ACCION has modified its earlier goal to graduate successful clients to commercial banks; instead, the clients are valued as attractive loan candidates. SGPs now offer additional services (fixed-asset loans, life insurance, and savings, for example) in order to remain attractive to these proven customers.

The role of savings has evolved and has become increasingly important in SGPs. Originally, savings were viewed as a guarantee for outstanding credit and as a way to encourage enterprise capitalization. Now, most ACCION program managers have adopted a much broader view of the role of savings, recognizing that savings mobilization is critical to the long-term viability and growth of these programs. Emergency funds (required group savings) raise the cost of borrowing but provide a critical backstop for loan repayment in the event of calamities or temporary illiquidity. Moreover, these funds are drawn upon by members interest-free if needed during the loan cycles.

Training and technical assistance have evolved in SGPs in response to SGPs' desire to deliver services of real value to clients. ACCION offers required courses (group formation and operation) and electives (management, accounting, production, and marketing), and charges a training fee. This increases participation in the electives, which are free, since participants must pay the initial training fee. ACCION is careful to heed the requests of group members in designing the elective courses, and is careful to keep courses dynamic and flexible. In Guatemala, 74 percent of program clients attended at least one elective training session. Technical assistance in the form of one-on-one counseling is used to follow up on the training sessions. Advisors visit the client's business to reinforce the course material and to help the client apply in the business the principles learned in the course. ACCION affiliates increasingly are applying to the training and technical assistance component the same principles of efficiency and financial self-sufficiency that have been applied to the credit operations. Training fees are kept distinct from loan payments, although they are collected at the same time. This separation is a new technique but is an important mechanism to account for the real costs of providing training and technical assistance. By segregating these costs and fees, it is possible to avoid hidden subsidies; credit programs do not pay for inefficient and bloated training programs, and training operations do not subsidize cumbersome credit-delivery methods.

There are many examples of self-help programs initiated by the SGP clients themselves. Market vendors in the South African Get Ahead Foundation have established vendor associations in several marketplaces to lobby for more direct services. Grameen Bank borrowers in thousands of communities have set aside an additional savings fund that is used to build and operate primary schools. In all these instances, the organizational impetus and the cost of implementation is borne by the members themselves.

The solidarity group network provided the organizational wherewithal, enabling the households to address common problems.

SOLIDARITY-GROUP CRITIQUE

The study addresses several criticisms of the solidarity-group lending model. Some programs have experienced high drop-out rates (38 percent in Colombia; one-quarter of these dropouts were because of repayment problems), but studies have not yet been performed to determine how much of this attrition is due to graduation and how much is part of the process of sorting through less reliable clients. Others contend that SGPs spawn a working capital dependency. The authors note that working capital loans in developing countries parallel the relationship between banks and businesses in formal economies; most enterprises maintain revolving lines of credits with their local commercial banks. Critics have also noted that SGPs can put undue social pressure on participants, may not be appropriate in all cultural settings, and do not generate enough employment.

There also are limits to the flexibility of the SGP model. The need to maintain a quality portfolio requires that the programs not short-circuit the basic principles of successful group lending. Limiting group membership to one family member and subsequent larger loans to successful repayment remain cornerstones of successful peer group lending. When these basic guidelines have been relaxed, there has been a rapid deterioration of portfolio performance. Both ACCION and GB have found that an initial period of strict and uniform lending policies (regimented early loan size, length, and repayment schedules) is an important training phase, preparing group members to be responsible borrowers. GB maintains inflexible eligibility standards in keeping with its focus on the poor; only families with less than a half acre of land may participate. Well-developed management information systems are critical to all SGPs. With an adequate credit information system, slippage in portfolio performance can quickly be identified; poor performance can be traced to specific regions or staff. Finally, decentralized decision making challenges the management effectiveness of the SGPs. Too much authority devolved to inexperienced regional officers or field supervisors can contribute to lax performance standards or examples of poor leadership or judgment. Programs undergoing dramatic growth are most susceptible to these types of problems.

LESSONS LEARNED

The solidarity-group methodology has proven to be dynamic and responsive to the development challenge it has faced. SGPS have demonstrated an ability to reconcile the competing pressures of servicing the very poor, reaching large numbers, and operating in a self-sustaining manner. Furthermore, through the mutual guarantee mechanism, heightened attention to management efficiency, and responsiveness to the market they service, these programs are not only delivering social services, but they also are building a sustainable basis for mutual accountability. In a field replete with development dinosaurs, this is no small accomplishment.

However, it is also important to note that not all solidarity-group lending programs have attained the results described here. The mutual guarantee lending method is not singularly responsible for the achievements of these programs; nevertheless it is a dynamic element of an organizational strategy for the successful delivery of financial services to the poor. The SGPs highlighted here are undergoing dramatic growth; although they are attaining financial viability, much remains for these programs to learn

as they become mature, stable institutions. These organizations are breaking new ground in the efficient delivery of credit, in the integration of savings as a valued service and as a source of capital for the program, in the provision of cost-effective training and technical assistance, and in the promotion of social organizational activities among program clients. The commitment to remain innovative and to generate a climate of mutual accountability will assist these organizations as they continue to grow.

A NEW VIEW OF FINANCE PROGRAM EVALUATION

GEMINI Working Paper No. 32

Elisabeth Rhyne
November 1992

This paper presents a framework for evaluating financial services programs for microenterprises that is in keeping with current understanding of the role of finance in economic development. This new view of microfinance emphasizes building financial intermediation systems that offer savings and credit services to previously marginalized groups on a commercially sustainable basis, rather than providing substitutes for the inadequacies of the existing system. Evaluations of finance programs based on the two-level framework described here will provide a clear picture of program achievements and a useful market and service analysis for the assisted financial institution.

Evaluation of these programs must eschew old assumptions about causality in provision of credit and instead examine the development of the financial system itself. Evaluations should focus on the quality of services provided and their institutional setting. From an economy-wide perspective, financial institutions contribute to economic growth by mobilizing and allocating a society's resources efficiently, helping an economy manage risk by diversifying it, and facilitating transactions. Evaluations should focus on indicators that reveal whether assisted institutions perform these basic financial functions well and whether services are extended to new areas or client groups. From the individual's perspective, access to financial services enables one to protect oneself and one's family against bad times, manage enterprises and other activities more efficiently, and obtain capital for investment. One should note that savings, as well as credit, fulfills all of these functions, that any single transaction is only one event in an ongoing series of financial decisions, and that financial services are used for important functions other than growth-oriented investment. Planners and evaluators should understand these functions before determining their own stated objectives, in order to avoid specifying objectives that do not adequately match client behavior.

A FRAMEWORK FOR EVALUATING FINANCE PROGRAMS

The evaluation framework described here has two levels — that of the client and that of the institution. In keeping with the emphasis on building healthy financial institutions, the new view should submit to market discipline as one of the most reliable and relevant indicators of performance. Each of the two evaluation levels is associated with a strong commercial test. If individuals pay full cost for a service on an ongoing basis, then evaluators can be sure that the service is valued at least as highly as its price. At the level of the institution, the strong commercial test is financial self-sufficiency, the ability to cover all costs from program revenues. These two tests are easily verified, and, if both are passed, evaluators can be confident that the program is successful. In order to satisfy donors, however, evaluations must also determine whether the frontier of financial services is being extended to previously marginalized groups. Finally, evaluations should produce information that enables the financial institution to improve performance by reaching new customers, offering better services, and operating more efficiently. Meeting this objective requires detailed information on clients and on internal operations.

THE CLIENT-SERVICE RELATIONSHIP

At the level of clients, evaluations should substantially resemble market research. The main point of the research is to understand the needs, preferences, and alternatives of the clients as they relate to the use of financial services generally and the offered services in particular. Areas of interest include numbers of clients and information on their basic characteristics, such as gender, location, and type of business. Donors and sponsors should adopt this marketing point of view that emphasizes knowing as much as possible about customers and focuses on certain customer groups. Good finance projects adopt such a perspective from the planning stage and use it throughout. Information on clients should be sorted to determine which categories of clients use specific types of services and which categories repay promptly and save regularly. Information on clients should also be compared to information about the general population of the area covered by the program, so that the program can be assessed in context. Estimates of the percentage of female clients relative to the percentage of women in the service area, for example, can tell a program whether it needs to make a minor adjustment or start a completely new service in order to reach women.

Evaluators should judge finance programs on the quality of services they provide to a given client group. This emphasis on service quality is one of the clearest departures of the evaluation approach described here from the evaluation methods most often applied to donor-assisted finance programs. Quality should be judged in a way that respects the clients' preferences and decision-making positions. The strongest and simplest test of service quality, as stated above, is willingness of clients to pay, which serves as a basic indicator of the value or benefit of the service. This market test should be supplemented with assessments of specific service features. Loan size, maturity, collateral, group guarantees; grace period, liquidity of deposits, and the like should each be examined in light of the preferences of the clients. The transaction costs of the client (transportation, legal fees, and time spent) in securing the financial service should also be studied with an eye toward simplification. Finally, evaluators must have a sense of the costs of the alternatives available to microentrepreneurs through informal financial arrangements. An understanding of the other options available will provide insight into whether the prices charged for financial services reflect the cost of this service or mask inefficiencies within the institution.

Evaluators are under great pressure to demonstrate to donors and sponsors of finance programs that positive changes in economic activity or quality of life are occurring. Donors would do well to keep in mind, however, that the effect of finance on the microentrepreneur is only one of several factors such as weather, competition, and health. Evaluations must recognize this limited role of finance in the client's decision making and the fact that use of financial services is an ongoing process for the small businessman. Rather than attempting to isolate this financial variable, evaluations should focus on explaining how the service changed the strategies and options available to the client and how changed financial decisions affected other economic decisions and outcomes. Examples might focus on changes such as ability to purchase raw materials at cheaper prices or accumulation of enough savings to survive a drought year. Rather than providing definitive impact results on predetermined indicators, such a line of questioning will produce results that are indicative of the nature of the effect. Although they may seem less precise, such results are more likely to be accurate reflections of what the provision of financial services actually accomplishes.

INSTITUTIONAL VIABILITY

A shift in perspective is also needed for the institutional portion of the evaluation, away from a donor-centric examination of the use of donor funds and toward examination of the institution itself, its services, and its self-sufficiency. Standard financial analysis techniques need to be adapted to the special attributes of the service, especially when the service differs significantly from standard commercial bank services.

The basic question at issue here is whether the service really works from a commercial point of view. The answer to this question is yes only if the income from the service covers its associated costs, both direct administrative costs and financing costs. The key indicators at this level are profitability of the service and, for credit, portfolio quality. In each of these areas, an overall assessment must be made, supplemented by a more detailed analysis to ensure that reported findings are robust and to pinpoint the sources of problems.

One problem facing evaluators is a lack of standards for services aimed at marginal groups; evaluators have little guidance to determine which levels might be considered standard. Moreover, information is often kept in a form that prevents both accurate assessment and comparison across programs, especially in portfolio quality. Evaluators should require institutions to maintain portfolio quality information that shows arrears categorized by degree of delinquency, so that they can assess accurately the portion of the portfolio at risk.

Evaluators must also examine the financial condition of the institution. The indicators of financial condition used most often are profitability, portfolio quality, liquidity, and capital adequacy. Subsidies such as grants or cheap credit must be corrected for in an assessment of financial self-sufficiency. Evaluations should recognize stages in the pursuit of self-sufficiency; one task is to examine which current subsidies are start-up subsidies and which are chronic. A program may be acceptable even if it has not reached viability, if it shows a convincing trend toward smaller subsidies and eventual commercial operations.

Finally, internal and external issues must be examined. Qualitative assessment of leadership, vision, and management must supplement the quantitative indicators in order to gauge the institution's ability to sustain and expand achievements in the future or adapt to changing circumstances. External issues are also important. These issues include the image of the institution among clients, the business community, and political leaders. They also include regulatory issues and the relation of the institution to the financial system. Examination of these qualitative questions informs decisions about future directions for the institution and its services.

THE ROLE OF SAVINGS IN LOCAL FINANCIAL MARKETS: THE INDONESIAN EXPERIENCE

GEMINI Working Paper No. 33

Marguerite S. Robinson
November 1992

This paper discusses the importance of savings in local financial markets, drawing on the recent experiences of the Bank Rakyat Indonesia (BRI) Unit Desa System. Although some of the specifics may be particular to Indonesia, the general principles illustrated by the findings of this research have widespread application for developing countries. The author contends that the fundamental lessons from Indonesia are that institutional viability, rural development, enterprise finance, and improvement in equity can be achieved simultaneously and that this can happen only if savings mobilization is transformed from the forgotten half to the sustaining half of rural finance.

Throughout the world and across many cultures and income groups, people save for varied purposes, including health or economic emergencies; investment; finance of consumption in the case of irregular income streams; social obligations; long-term goals such as the education of children, electrification, or pilgrimages; and retirement. Moreover, households are not the only savers at the local level: local enterprises, groups, organizations, and institutions also save. Such savings are potentially available to financial institutions, offering security, convenience, liquidity, and returns. And yet, neither the reality of extensive liquidity among households in many rural and urban areas of developing countries nor the importance of savings mobilization for local financial markets and enterprise development has been sufficiently understood by policy makers. Savings, "the forgotten half of rural finance," is rarely a priority for financial institutions, policy makers, or donors. It is widely assumed that low institutional deposits in rural areas demonstrate that rural households cannot save because they are too poor or will not save because they prefer to use their incomes for consumption, or choose to save in other forms.

This paper contends that the reason for low savings mobilization is a lack of savings options that reflect the needs of the rural poor. Economic growth and monetization of rural economies have created an unmet demand for liquid savings instruments. Imperfect options available to rural households include grain and cash in the home (the village ethic requires this to be lent to kinsmen in need), livestock (which are time-consuming to maintain), gold (a security risk); or land (a significant investment). Informal associations such as ROSCAs and credit unions require illiquid forced savings. None of these fits the needs of the rural poor; as one villager commented, "My investment opportunities are not the same throughout the year. I need a place to store money safely while I look for the right openings."

THE BENEFITS OF INSTITUTIONAL SAVINGS

For poor savers, appropriately designed institutional deposit instruments provide the only opportunity to combine security, convenience, liquidity, and returns. For the financial institution (FI), voluntary savings are the key to long-term viability. Secure, conveniently located FIs that offer a choice of deposit instruments providing different ratios of liquidity and returns can simultaneously benefit individuals, households, groups, enterprises, participating FIs, and the government as well as contribute to local, regional, and national economic development.

In addition, deposit instruments that permit group savings accounts benefit organizations such as village treasuries, schools, religious institutions, women's associations, sports associations, and groups disbursing funds for development projects. In Indonesia, group savings accounts have been reported to improve the financial security of the group, to decrease opportunities for corruption, and to improve the accountability and financial management of group funds. Finally, mobilization of local savings benefits the economy directly by increasing the resources available for productive investment. When coupled with a program offering credit to microenterprises at commercial interest rates (as in Indonesia), savings mobilization generates employment and improves equity. Effective savings mobilization is crucial for local development because it encourages self-finance of investments, it meets the large demand for credit at commercial interest rates, and it enables the growth of sustainable financial institutions.

SUCCESSFUL SAVINGS MOBILIZATION IN INDONESIA

The Indonesian experience has demonstrated the benefits of savings both to the economy and to local development. Much of the success of the savings program is due to changes initiated in the 1960s and 1970s. Controlled inflation and political stability increased confidence in the government. BRI's unit banks, created in the 1970s to provide subsidized credit to rice producers, familiarized the rural population with financial institutions. Indonesia invested oil earnings in rural development. Finally, financial deregulation and tax, trade, and investment reform laid the groundwork for the unprecedented rural banking success of the late 1980s.

The only savings option BRI offered from the 1970s until 1984 was TABANAS, an account that offered positive real returns but permitted only two withdrawals per month. After researching the needs of rural villagers, the BRI staff recognized the importance of liquidity and determined that a set of deposit instruments offering different proportions of liquidity and returns could simultaneously meet demand and, in combination with the KUPEDES program of general rural credit, permit institutional profitability. Consequently, BRI designed four different savings accounts. SIMPEDES and its urban counterpart, SIMASKOT, offer unlimited withdrawals and split interest rates determined by the minimum monthly balance. BRI discourages small accounts in the labor-intensive SIMPEDES by paying no interest for accounts smaller than approximately $25. SIMPEDES/SIMASKOT accounts pay 9 to 19 percent interest compounded monthly for larger accounts. (Inflation was 9.5 percent in 1991.) The SIMPEDES account has attracted public attention by holding semiannual lotteries — prizes range from cars to clocks; the number of tickets per individual depends on the size of the deposit. BRI hopes small depositors such as school children will be attracted to TABANAS accounts, which offer higher returns (12 percent-22 percent) but only two withdrawals per month. Deposito Berjangka offers 24 to 26 percent interest for 1-, 3-, 6-, 12-, or 24-month certificates of deposit. Giro is a low-interest demand deposit account designed for specialized institutional purposes.

The savings initiative was an immediate success. When the pilot project on savings mobilization began in November 1984 in all unit banks in the Sukabumi district, the total regional savings were $169,000. Two months later, Sukabumi's unit bank deposits totaled $459,000, an increase of 172 percent in two months. SIMPEDES accounted for 65 percent of the total. Village unit bank deposits in Indonesia increased from $17.6 million at the time of financial deregulation in 1983 to $1.3 billion in December 1991. These new savings instruments complemented the KUPEDES rural credit program (which charges an average effective interest rate of 32 percent) begun in 1984. The positive spread allowed the system, which had previously generated considerable losses, to become profitable in 1986; by 1991, it supplied more than two-thirds of BRI's total profits. BRI serves 20 percent of Indonesian households (8.6 million savings accounts) through the unit bank system in rural and urban areas

throughout the country. Savings accounts outnumber loans outstanding by almost 5 to 1. SIMPEDES, SIMASKOT, and TABANAS account for 97.1 percent of total unit bank accounts and 72.3 percent of the amount of unit bank deposits. The average size of these three accounts is $113. All deposits are guaranteed by BRI. Households and household-financed enterprises benefit not only from the improved savings options, but also from the expanded volume of institutional credit made available by the savings program for finance of local enterprises.

BRI's accomplishments were made possible by 10 specific changes within the bank. These included:

- A major reorganization of BRI management at all levels, from the head office to the unit banks;
- The high priority accorded by the head office to the management of the unit banking system;
- Extensive reorganization and staff training throughout the country;
- Establishment of a system of promotion that incorporates the unit bank staff into the wider BRI personnel system;
- A fundamental revision of bookkeeping, audit, and supervision systems that permitted the establishment of the unit banks as independent financial units (not branch windows), making accountability possible and also making feasible the sustained anticorruption drive that was implemented in the unit banking system;
- The opening of new unit banks and the relocation of others to areas with high demand;
- Attention to learning about rural financial markets and emphasis on using this information to avoid potential problems associated with moral hazard and adverse selection;
- Crucial improvements in communication and computerization facilities;
- A complete overhaul of BRI's public relations; and
- The implementation of an effective unit bank staff incentive system that rewards good performance.

Although problems remain (the aforementioned changes are not yet complete), these difficulties are recognized by BRI's management, and their improvement is accorded priority.

POLICY LESSONS FROM THE BRI EXPERIENCE

The Indonesian experience provides overwhelming evidence that deposits can be mobilized locally in ways that are profitable for the institution and beneficial for the savers, that sustainable rural financial institutions can be created and maintained, and that successful development of rural financial intermediation is possible on a large scale. Some of the lessons that emerge are general and might be adapted to the conditions of other countries:

- Good macroeconomic management, including control of inflation and interest rate decontrol, political stability, and investment in rural development, is a requirement for the sustainable development of a successful rural banking system operating on a large scale. This management will foster the sense of trust among the rural poor which must exist for development to succeed.

- "Rural undersavings" is a myth; savings mobilization is both achievable and essential for sustainable rural financial intermediation. A poor savings record does not indicate an inability to save, but instead the inadequacy of existing financial instruments. Without savings mobilization, rural FIs will never be self-sufficient — let alone profitable — and institutional loan programs will never have the funds to satisfy credit demand.

- Analysis of rural markets — and the training of institutional staff in understanding the markets they finance — are essential for the design and implementation of successful financial instruments and services and for the development of sustainable FIs. BRI conducted substantial market research before launching its credit and savings programs. Products offered accurately reflected the needs of the intended clients.

- Effective leadership and management are essential for selection of the priorities required to develop viable rural financial institutions and to successfully implement appropriate services and instruments. BRI's extensive restructuring reflected the goals of the Board of Directors and were supported by government policy makers.

- Lending and deposit instruments and the spread in their interest rates should be planned in conjunction with one another. These instruments need not be implemented simultaneously (for example, an institution may need to build up trust through lending before mobilizing voluntary savings), but if one is planned without regard for the others, the system cannot be sustainable for the long term.

- It is not necessary to choose between the economic profitability of the financial institution and the social profitability to the country. Of course, circumstances vary in different countries and regions, but the Indonesian case shows that there need not be a trade-off between economic and social profitability. In Indonesian rural banking, the former is in fact necessary for the latter. The Indonesian government could not possibly make available the large volume of credit needed to meet demand for full development of its rural areas without rural savings mobilization.

- The Indonesian experience demonstrates that a spread between lending and savings interest rates can be set that permits bank profitability and has a positive effect on both development and equity: a large amount of funds has been provided for rural credit at substantially lower interest rates than had been available previously in the informal market, the savings instruments offered in the unit banks provide generally positive real returns to millions of customers, both KUPEDES and SIMPEDES have been successful in reaching customers who had never before borrowed or saved in a bank, and KUPEDES provides loans to a wide range of borrowers with reported monthly household incomes of $78 or less.

BANCOSOL: A PRIVATE COMMERCIAL BANK

A CASE STUDY IN PROFITABLE MICROENTERPRISE DEVELOPMENT IN BOLIVIA

GEMINI Working Paper No. 35

Amy Glosser
February 1993

This paper describes the transformation of PRODEM, a Bolivian NGO engaged in microlending, into a commercial bank — Banco Solidario, S.A. or BancoSol. PRODEM initiated this change to better fill the needs of its clients — microentrepreneurs traditionally excluded from formal banking services — and to demonstrate that serving this market could be profitable for commercial banks. This paper describes PRODEM in its original form, the rationale for the transformation, the many decisions planners had to make to realize this goal, and the challenges that remain for BancoSol in the future.

PRODEM

ACCION International (a U.S. NGO) and influential Bolivians established PRODEM in 1986 to fulfill the demand of Bolivian microentrepreneurs for credit. During its first five years, PRODEM demonstrated dramatic operational success and growth potential, providing nearly 124,000 loans, opening 11 branch offices, acquiring a portfolio over $4 million, and maintaining a nearly perfect repayment record. The program uses the solidarity-group lending methodology, in which small groups of borrowers collectively guarantee one another's loans. The initial loan size is about $50 per person (5 percent of each loan must be saved) and increases with the successful payback of each loan. Loan terms average 18 weeks. Effective interest rates are 69 percent in bolivianos (commercial rates fluctuate between 35 percent and 50 percent), reflecting the higher cost of lending to this client base. More than 77 percent of PRODEM's clients are women; most are urban poor who sell produce, prepared food, or consumer goods in the market. In 1989 and 1990, PRODEM also offered courses (marketing and administration were popular); these efforts were suspended in order to perfect the credit program and determine the exact cost of the banking operation. PRODEM's success can be attributed to powerful information systems that closely monitor loans, an organization-wide commitment to total quality, and an investment in employee training and development.

Despite PRODEM's success, it was estimated that the program was reaching less than 2 percent of demand. In 1988, members of PRODEM's Board of Directors began discussing the conversion of PRODEM into a for-profit institution. As an NGO, PRODEM was legally restricted from seeking alternative sources of funding such as client savings, commercial debt, shareholder investment, and loans from the Central Bank of Bolivia. Yet only with access to these sources of funds could PRODEM realize the desired level of expansion. PRODEM planners saw deposit taking not only as a source of funding, but also as an important service to provide the poor. PRODEM's staff and leadership thus perceived a need to create a full-service financial institution that specifically addressed the distinct and diverse needs of their clientele. In addition, PRODEM's leadership sought to create a market-driven approach to microlending and development. The bank would aim to demonstrate that the self-employed are good business partners and that they represent an important business opportunity. PRODEM sought to create

a commercial entity that not only would be sustainable but also could generate its own financing independent of donors while continuing to serve its target client base.

THE TRANSITION

Once PRODEM's leadership decided to create a formal bank, a separate steering committee, COBANCO, was formed in 1989 to carry out the transition process. Its responsibilities included:

- Performing a financial feasibility study of the proposed bank;
- Promoting the project to potential investors;
- Coordinating with and informing local authorities;
- Securing financing for the transformation;
- Coordinating the issuing of stock and the legal process with the Superintendency of Banking (SIB);
- Negotiating with donors the transfer of funds from PRODEM to the new bank; and
- Coordinating the organization and design of new operating plans for the bank and PRODEM. In planning this last task, COBANCO determined that PRODEM would retain an important role.

Once the bank was created, PRODEM would continue to operate existing offices until they became profitable; open new offices in small towns to bring financial services to the rural poor; and directly assist the bank by covering costs associated with consultants, training, and staff development. BancoSol would buy all offices once they were profitable and pay for these technical services once the bank became self-sustaining.

Due to input from multilateral lending and financial institutions, COBANCO determined that the transformation should be financed by commercial debt, not concessionary loans. The transformation received a boost when PRODEM donors (particularly USAID) agreed that the NGO could sell a large portion of its portfolio ($2.5 million) to the new bank in exchange for shares (44.2 percent of total bank stock). Multilateral investors became interested; the IDB, IFC, and IIC saw in BancoSol a way to diversify their portfolios with alternative private sector development projects. 75 percent of BancoSol investors are foreign; Bolivian equity investment came from businesses associated with PRODEM and BancoSol board members. By December 1990, BancoSol had commitments for almost $5 million of equity financing.

The process of legal incorporation proved lengthy and tedious. The antiquated 1928 laws governing the Bolivian financial community were biased in favor of traditional banks located in business centers. In addition, the SIB was especially thorough and cautious due to the new and unique operation of the proposed bank. Operationally, PRODEM had to perform a comprehensive formalization to become a bank — paying taxes and reporting all financial activity to the SIB, for example. Anticipating the need for extensive changes, COBANCO initiated the operational transition early in 1991 at PRODEM. PRODEM designed new software to meet SIB requirements, improved security, and made a large

investment in preparing its employees for the transition, both technically and conceptually. In addition to seminars and training sessions aimed at increasing the skill level of its employees, PRODEM also held a series of motivational seminars that addressed the tension between the social objectives of PRODEM and the profit motives of the new bank. Most employees hired by BancoSol came directly from PRODEM, but several new employees were also hired from the banking sector. In December 1991, after all preparations were made, clients were informed of the transition. Nearly all the clients were immediately pleased by the idea; many commented that, finally, they too would have a bank that understood and catered to their needs.

BANCO SOLIDARIO, S.A.

BancoSol officially opened in February 1992 in the San Pedro barrio of La Paz; by August 1992, six BancoSol offices were functioning in the regions of La Paz and El Alto. All but one office were converted from PRODEM to BancoSol. Each office is strategically located near or in a market district and is modestly designed, taking care not to intimidate the client. At present, BancoSol offers its clients only two services: savings and credit. According to BancoSol's policy statement, "the bank will develop new services as they are demanded by the target market, always aiming for simple procedures and agile processing." Plans to diversify types of loans offered include credit for investment capital, housing, and health care.

METHODOLOGY

In terms of credit services offered, BancoSol has changed very little from PRODEM's proven practices. Effective interest rates are still 4 percent per month, about 20 percent above other commercial rates. BancoSol's minimum loan is $80; the maximum is $5,000. BancoSol actively promotes its services, canvassing neighborhoods for potential clients and assessing their needs and concerns. Groups of four to seven unrelated individuals organize themselves; each must operate a business within three blocks of the others. The solidarity group acts as the key screening mechanism and substitute for collateral. Loan officers make a site visit to verify information in the application; if approved, group members return to BancoSol to discuss the exact procedures for repayment. The group decides the schedule of repayment: every week, every 25 days, or every 28 days. The check is made out to the whole group, with 5 percent of the loan deposited in a mandatory savings account. Individuals are also given a passbook savings account and are encouraged to make deposits. 2.5 percent of the loan is charged as a loan fee. Because of the software developed by PRODEM, loan officers are informed of late payments immediately and visit the delinquent group the next day. If payments are more than two days late, the group is penalized by delaying and lowering the amount of the next loan. 99.64 percent of payments are made within a week of the due date.

Due to its formal banking status, BancoSol can offer voluntary savings to its clients in addition to the required savings, although BancoSol's plan to capture savings has not yet been initiated. The bank is developing a strategy to mobilize savings from the current client base and from the informal sector in general; the bank plans to offer positive real returns and no minimum balance.

The quality of BancoSol's assets is strong due to its very low default rate on loans. BancoSol's equity will be used to finance operational losses until the bank becomes profitable, to purchase liquid investments and fixed assets, and to meet the minimum equity requirements of the SIB. No dividends

will be paid or declared until after the third year of operations, at which time the bank will revise its dividend policy. The administrative costs for BancoSol are 80 percent of its total costs of operation; the industry standard is about 20 percent. This difference stems from the high costs associated with microlending and from the fact that the bank will need three years to achieve the economies of scale necessary to cover fixed costs.

CHALLENGES FOR BANCOSOL

One of the principle challenges BancoSol faces is to meld together the seemingly disparate goals of serving the poor and creating a profitable bank. Another critical challenge for BancoSol is to achieve profitability. BancoSol must significantly expand its credit program yet maintain the quality of its portfolio. Many are concerned about the competition from NGO microcredit programs that can lend at much lower rates. Some observers doubt that BancoSol can maintain its commitment to the microenterprise sector and still reach the desired levels of profitability. Finally, BancoSol projections show that client savings will be a main source of financing for the growth of the institution, but the bank is still in the process of crafting an appropriate savings service for microentrepreneurs.

Several factors have contributed to PRODEM's successful drive to create BancoSol. Macroeconomic stability and political stability were critical prerequisites. The transformation has depended on tremendous commitment from planners, donors, and staff at PRODEM. Creating the bank and convincing constituents that this unique bank was viable have required a great deal of patience, persistence, time, and effort from many people. The project has benefited from the fact that PRODEM and BancoSol Board members are prominent members of the Bolivian business and financial community. Their support brought credibility to the venture, generated interest both in and outside the country, and provided critical insight for the bank design and transition process. Finally, PRODEM's success as a microcredit lending program and its ability to operate at break-even levels was crucial to the creation of a bank. PRODEM gave the bank its track record, trained personnel, experienced leadership, systems, clients, market knowledge, sizable portfolio, and an overall commitment to quality-driven operations.

TRANSFORMATION LENDING: HELPING MICROENTERPRISES BECOME SMALL BUSINESSES

GEMINI Working Paper No. 37[2]

Larry Reed
David Befus
April 1993

This paper examines how small enterprise credit institutions can support the transformation of microenterprises from the microenterprise sector to the small enterprise sector. It first reviews the needs of enterprises undergoing this transformation. Next, the paper surveys five lending institutions that support microenterprise transformation, analyzing their program design, lending methodology, financial performance, and impact. The paper summarizes the key lessons derived from this review and suggests areas where additional research could help credit institutions develop appropriate programs to aid this transformation process.

THE NEEDS OF A GROWING MICROENTERPRISE

Successful microentrepreneurs in many countries find themselves caught in a gray area of development: they are too big for microenterprise lending programs that may have helped them in the past, but are still not big enough to receive credit from formal institutions. These enterprises may offer the greatest potential for reaching the poorest of the poor by creating jobs and for generating the greatest developmental impact by transforming marginal enterprises into sustainable businesses. Transformation lending is the provision of a mix of credit and services that assists successful microenterprises (up to 10 employees) to increase their assets and productivity to the level of small businesses (10-50 employees) engaged in the same economic activity, thereby increasing their sales, income, and number of employees (this paper does not include legal status or source of financing in its definition of transformation).

Most microenterprises start as highly integrated firms. If successful, they often find that they can increase their productivity by restricting themselves to a smaller number of activities within the production and distribution system. With this increased specialization come many other changes in the operation of the business, including:

- Changes in personnel. Successful microenterprises rely less on family labor and more on hired labor. This entails personnel management and labor relations — a new concern;

- Changes in marketing. Transformation businesses must secure new markets, which means defining one's comparative advantage and expanding beyond local markets to include sales to formal businesses;

- Changes in technology. Larger markets require increased production and uniform quality standards;

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[2] This Working Paper is also applicable under Action Research Program I: Growth and Dynamics.

- Changes in supply. Growing firms must secure dependable long-term sources of inputs;
- Changes in credit needs. Transforming firms still need working capital loans, but they also need credit for fixed asset investment; and
- Improved cash management. Firms must clearly distinguish between business and household funds.

There are two key implications for credit programs seeking to support microenterprise transformation. First, these programs must provide credit for both working capital and fixed asset needs. Fixed asset loans must be large enough to make equipment purchases and over terms long enough to make repayment affordable. Second, credit alone will not cause a microenterprise to transform. Some microenterprise owners will already have the skills and knowledge necessary to change; others will need considerable assistance to develop production processes, management, marketing channels, and sources of supply. The type and amount of services a transformation lending program provides depend on whom it targets.

A REVIEW OF FIVE TRANSFORMATION LENDING PROGRAMS

This paper surveys the methods and results of microenterprise programs in the Caribbean (the Association for the Development of Microenterprises, or ADEMI, in the Dominican Republic and the National Development Foundation in Jamaica, or NDF/J), Central America (Instituto de Desarrollo Hondureño, or IDH, in Honduras), Asia (Bank Rakyat Indonesia Unit Desa System, or BRI), and Africa (Agence de Crédit Pour l'Entreprise Privée, or ACEP, in Senegal). There is considerable variation in methodology and services provided. For a side-by-side comparison of methodologies, performance, organizational structure, and impact, see Tables 1 and 2.

METHODOLOGY AND SERVICES PROVIDED

One of the principle differences in methodologies is whether the programs require borrowers to develop a credit history with the institution before qualifying for large loans (the gradual approach, used by BRI, ADEMI, and IDH) or whether programs offer large loans from the start (the high hurdle approach, used by NDF/J and ACEP). All programs lend to individuals, but some lend to groups; ADEMI used to lend to groups but found it too costly and time-consuming when targeting growing microenterprises. All charge positive real interest rates. The programs offer a variety of services. All offer working capital loans and fixed asset loans. IDH has three distinct lending programs: individual loans, group loans made to community development organizations, and community bank loans to groups of 30. BRI offers the popular SIMPEDES savings program; ADEMI and NDF/J do not offer savings accounts but encourage borrowers to make deposits in commercial banks. IDH requires savings equal to loan size for its community loans; ACEP is in the process of becoming a credit union, which can accept deposits. All require some form of security. BRI requires collateral; land, buildings, vehicles, the assignment of wages or (for small loans) proof of paying taxes is sufficient. IDH requires collateral or a qualified cosigner. ACEP requires both.

PROFITABILITY

BRI is the only microcredit program in the world that is completely self-sufficient. Since 1989, savings have exceeded deposits; total profits between 1985 and 1989 were $20.2 million. Since 1988, ADEMI's fees and interest income have exceeded all expenses, but grants still make up 5 percent of ADEMI's total income. IDH's expenses exceeded income by $15,000 in 1991. Donated funds covered this cost, allowing IDH to make a profit, but this was still not sufficient to cover the cost of inflation. NDF/J earned enough to cover the expenses of the credit program in 1989; it receives income from an endowment fund, which pays some of the training costs. This income still cannot cover the cost of inflation. ACEP earned a profit of $52,840 in FY 1991, but it receives two subsidies: it does not have to pay the salary of the director, nor does it pay cost of capital.

IMPACT

A 1988 study of BRI borrowers found that total household income grew in real terms at an average annual rate of 20.7 percent and wage rates grew in real terms at an average annual rate of 2.9 percent. ADEMI found that, on average, borrowers who had received 10 loans create 4 jobs; 15 loans, 12 jobs; and 20 loans, 16 jobs. The IDH, using stringent job-creation requirements, reported 8,295 jobs created since 1979. NDF/J reports that it has trained 18,000 people and creates, on average, four new jobs with each loan. ACEP states that its loans created 1,301 new jobs in 1991, but does not differentiate temporary, part-time, and trainee positions.

KEY LESSONS

This review of five credit programs provides insight into the way lending institutions can support the transformation of microenterprises into small businesses. Several useful lessons emerge:

- Microenterprise lending programs can serve the needs of transforming enterprises in a financially viable way.

- Successful transformation lending programs have characteristics in common with all successful providers of credit. Regardless of the target group, all cost-effective microcredit programs have the following characteristics: streamlined lending procedures that speed the process of loan analysis and approval, information systems that keep staff abreast of loan repayments, loan costs commensurate with loan income, decentralized program structures, and positive interest rates.

- Successful transformation lending programs have developed lending methodologies or policies that differ from programs that provide only short-term working capital. All five of the transformation programs studied lend to individuals, provide both fixed-asset and working capital loans, and have high loan ceilings and higher collateral requirements. These policies differ markedly from those of lending programs aimed at enterprise expansion rather than enterprise transformation. Lending methodologies aimed at transforming enterprises do not work well for expanding enterprises, and vice versa.

- The same institution can serve both expanding enterprises and transformation enterprises in spite of their distinct needs; BRI, ADEMI, and IDH indicate that this is feasible.

- There are two successful methods for identifying microenterprises that can successfully undergo transformation. The gradual growth approach works with all microenterprises; the high hurdles methodology seeks to work with only the small percentage of microenterprises that are growing. Gradual growth is more effective in reaching small microenterprises and women, who typically own few assets.

- Targeted training programs may support microenterprise transformation, but they are not necessary for transformation lending. BRI and ACEP have successful programs that do not include training.

- Lending institutions can support microenterprise transformation and still reach a large number of beneficiaries at low cost. Gradual growth institutions had at least one beneficiary for every $500 in the portfolio, while high hurdles institutions spent $950 or more to serve one individual.

- The above evidence indicates that transformation lending programs do support growth in assets, employment, and productivity of microenterprises, helping them to transform into small businesses.

AREAS FOR ADDITIONAL RESEARCH

Although this paper indicates that there are viable ways to help growing microenterprises, it is clear that there is a lot we still don't know. More research would clarify exactly what role training plays; some successful programs offer it, other success stories do not. Similarly, different subsectors grow at different rates; additional study in this area might help microcredit providers target their transformation lending programs to subsectors that yield maximum results. Finally, we lack consistent evaluations of impact that include control groups of nonborrowers, and we do not clearly understand the different long-term impacts of expansion versus transformation programs.

TABLE 1

COMPARISON OF PROGRAMS
METHODOLOGY, TRAINING, AND PROGRAM PERFORMANCE

	BRI Unit Desa	ADEMI	IDH	NDF/J	ACEP
Background					
Year Started	1984	1983	1979	1981	1986
Year of Data	1990	1989	1991	1990	1991
Program Methodology					
Loans to Groups	No	No	Yes	Yes	No
Loans to Individuals	Yes	Yes	Yes	Yes	Yes
Maximum Loan Size	$13,500	$5,000	$10,000	$35,000	20,000
Max. Loan Term in Months	36	24	36	120	16
Average Loan Size	$419	$544	$683	$6,870	$2,877
Avg. Loan Term in Months	11	6	14	48	8
Effective Interest Rates*	32%**	74%	29%	32%**	31%
Training					
Has Training Program	No	Yes	Yes	Yes	No
Training Costs as % of Total	0%	3%	8%	24%	0%
Program Performance					
# of Loans Made/Year	1,379,000	7,619	778	562	1,373
Value of Loans/Year (000s)	$578,437	$4,142	$531	$3,861	$3,950

* Effective interest rates include commission and fees charges and are calculated using the average loan term for each program.
** Program uses tiered interest rate structure. Number given is the average rate.

Sources: BRI: Boomgard and Angell, 1990. ADEMI: Lewin, 1991. IDH: IDH, 1992. NDF/J: NDF/J, 1992. ACEP: Rolf, 1992.

TABLE 2

COMPARISON OF PROGRAMS
FINANCIAL PERFORMANCE, ORGANIZATIONAL STRUCTURE, AND IMPACT

	BRI Unit Desa	ADEMI	IDH	NDF/J	ACEP
Financial Performance					
Loan Portfolio (000s)	$535,040	$2,119	$618	$4,505	$2,570
Interest and Fee Income (000s)	$159,700	$945	$119	$1,015	$423
Total Expenses (000s)	$133,760	$643	$119	$946	$370
Earnings (000s)	$25,940	$302	$0	$70	$53
Cost/$ in Portfolio	$0.25	$0.30	$0.19	$0.21	$0.14
Income/$ in Portfolio	$0.30	$0.45	$0.19	$0.23	$0.16
Return on Average Assets	3.5%	14.6%	0.0%	1.1%	1.8%*
Average Cost of Capital	12.0%	8.0%	0.5%*	3.0%	0.0%
Arrears Rate	5.1%	10.2%	20.3%	11.0%	NA
Default Rate	1.2%	1.2%	7.1%	2.1%	2.0%
Organizational Structure					
Number of Branches	3,628	20	5	4	14
Loan Officers	10,950	70	14	23	14
Loans/Loan Officer	126	109	56	24	98
Loan Portfolio/Loan Officer	$52,825	$30,271	$44,143	$195,870	$183,571
Impact					
Jobs Created/Year	540,127*	2,011	1,452	2,675	1,301
Amt. Loaned/Job Created	$1,071	$2,060	$366	$1,443	$3,036
% of Loans to Women	25%	35%	74%	NA	23%
Total Beneficiaries/Year**	1,168,951*	4,555	2,230	3,237	2,674
Loan Portfolio/Beneficiary	$458	$465	$277	$1,392	$961

* Estimates
** Total beneficiaries/year equals new clients plus new jobs created in year.

SHOULD PRINCIPLES OF REGULATION AND PRUDENTIAL SUPERVISION BE DIFFERENT FOR MICROENTERPRISE FINANCE ORGANIZATIONS?

GEMINI Working Paper No. 38[3]

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Claudio Gonzalez-Vega
April 1993

This paper discusses general principles of financial intermediary regulation and prudential supervision and evaluates how these issues are relevant for microenterprise finance organizations. The paper provides the rationale for the regulation of depository financial institutions and defines different types of financial regulation and supervision. The authors propose regulatory and supervisory commandments and point out frequently adopted instruments of prudential regulation. The paper emphasizes consumer protection issues in the presence of market failure and conditions for the successful enforcement of financial contracts. The paper describes proven regulatory and supervisory methods, but it points out that it is critical to recognize idiosyncratic risks. Due to wide variations in microenterprise finance organizations and diverse legal and economic environments, one cannot devise a general formula for appropriate financial regulation and supervision worldwide.

DEPOSITORY FINANCIAL INTERMEDIARIES AND THE RATIONALE FOR THEIR REGULATION

The study contends that optimal regulation seeks to replicate perfect-market mechanisms, since the market itself regulates actions with appropriate rewards and penalties. Prudential financial regulation seeks to contribute to the stable and efficient performance of financial institutions and markets. Supervision of compliance with regulations that promote stability and efficiency is a key component of financial progress. The authors note that government regulation should serve three basic policy goals: to ensure the solvency and soundness of all intermediaries, to provide consumer protection against undue risk, and to promote the efficient performance of institutions and the market. While the first two objectives go hand in hand, they contradict the third, as there are always winners and losers in a competitive market. These seemingly conflicting objectives must be balanced. The practical problem is to develop a system that allows the market mechanism to work, while keeping the system safe.

Depository financial intermediaries must be regulated for several reasons. These institutions are particularly important in developing countries, where other dimensions of financial markets are undeveloped or completely absent. Given the crucial services provided by depository intermediaries, their failure as a system imposes high costs on an economy. The United States, Chile, and Uruguay, among others, have all experienced costly bail-outs in the 1980s. Moreover, the contracts between depositors and owners of depository financial organizations provide the owners with ample occasion for opportunistic behavior. Institution owners reap the rewards of risky loans that turn out well, but depositors lose when a high-risk borrower defaults. A final argument for regulation of depository intermediaries arises

[3] This Working Paper is also applicable under Action Research Program III: Nonfinancial Assistance.

from industry-wide negative externalities associated with opportunistic lending. Lending to risky borrowers sometimes does pay; this allows these institutions to offer higher returns to depositors. This can touch off a race among intermediaries to engage in riskier lending in order to offer higher returns and attract depositors. Should one of these high-risk intermediaries fail, an industry-wide run on banks can result. Prudent government regulation responds to these consumer protection issues and the higher-than-normal levels of instability in the deposit-taking industry.

Concerns with consumer protection are particularly high for microenterprise finance organizations (MFOs). It is reasonable to assume that depositors in MFOs fall into the lower-income percentiles of people in developing countries; losses from insolvency or fraud in these institutions will thus affect people with lower endowments of wealth and income. The paper argues that MFOs should be closely supervised for two reasons: those in control of the capital often do not own the organization, and any negligent action on their part leading to the loss of deposits is punished, at most, with the loss of their jobs; and most MFOs are located in developing countries, where remedial legal action may be too costly or may be impossible for small depositors who have lost their savings.

PRINCIPLES FOR THE REGULATION OF DEPOSITORY FINANCIAL INTERMEDIARIES

Few observers doubt the need for prudential regulation of depository intermediaries, but the diversity of circumstances worldwide impedes the creation of a formula of standardized amounts and levels of regulation. This paper provides a set of general principles on regulation and supervision. The following is a discussion of some of these "commandments" and frequently adopted instruments of prudential regulation.

Regulation should seek to level the playing field by minimizing disturbances to the existing competitive balance among financial intermediaries. This principle of competitive neutrality requires that no particular intermediary be granted an advantage over its peers because of its charter, its clientele, or its operations. Licensing of financial intermediaries is universal; often it has the hidden agenda of restricting entry of new intermediaries. Licensing needs only ensure sufficient capital adequacy and the availability of sound management.

The regulation of financial markets should not be used to promote social objectives. In practice, such regulation becomes repressive; it fails in its social objectives but imposes high costs on all market participants. Fiscal tools are a better option for cost-effective achievement of social and political objectives.

Rather than attempting to prevent all bank failures, regulation should seek to impose a high cost on those responsible for failure resulting from fraud or financial mismanagement. Regulation should rely as much as possible on the self-interest of the economic agents involved; ideally, regulation should be incentive-compatible. Capital adequacy requirements such as minimum solvency or maximum leverage ratios fulfill this goal. Regulation must be flexible and react promptly and appropriately to changing situations over time. Finally, different intermediaries should be regulated differently to reflect diverse operating environments, clientele, and institutional design.

Frequently, adopted protective regulation includes a role for government as a lender of last resort and provider of deposit insurance. Governments can provide loans to troubled intermediaries that are temporarily illiquid but solvent and fit for long-term survival. By providing deposit insurance, the

government removes the depositor's incentive to be the first one to withdraw funds from a troubled intermediary. Both of these steps, however, rest on the existence of sound preventive regulation and an efficient system of supervision.

In addition to licensing and capital adequacy requirements, preventive regulation also includes rules about activities a financial intermediary may or may not engage in. Loans to institution insiders should be forbidden (credit unions and village banks, however, are examples of the need for individualized regulation, as they lend only to insiders), and a country may wish to restrict equity investments by depository intermediaries. Rules requiring a diversification of loans will minimize the risk caused by a concentration of loans to a few individuals or to a given industry. The regulation of savings and loans in the United States has been criticized for forcing some intermediaries to lend only in specific geographic locations or for specific purposes. The amount that any intermediary may risk in a single gamble should be a function of its equity capital. Finally, the regulatory framework should provide the supervisory agency with enough authority to perform its mandate.

PRINCIPLES FOR THE PRUDENTIAL SUPERVISION OF DEPOSITORY FINANCIAL INTERMEDIARIES

The main goal of the supervisory system should be to work as an early-warning mechanism about changes in the probability of an intermediary becoming illiquid, insolvent, or both. One principle of prudential supervision relates to what supervisors are expected to enforce. Supervisors should attempt to make intermediaries comply with a comparatively small number of clear rules and should not be required to enforce rules not related to prudential regulations, such as tax laws or foreign exchange controls. Supervisory authorities should not manage intermediaries but should constantly monitor them. Effective supervision requires a better predictive ability than that of traditional banking methods; past performance should not be the sole determinant in assessing risk levels. Thus, supervisors should use data supplied by the intermediary to calculate a series of financial ratios useful as predictive variables. These calculations may be backed up by on-site inspections to verify data accuracy. Finally, supervision should be flexible, neutral, and responsive to changes and innovations in the market.

RISKS OF FINANCIAL INTERMEDIATION

Common sources of insolvency for financial intermediaries include credit risk (loan defaults), interest-rate risk (a negative spread caused by a mismatch of the term to maturity of assets and liabilities with fixed interest rates), liquidity risk (an institution's difficulty in obtaining needed cash at a reasonable cost), and fraud risk. One risk specific to MFOs is subsidy dependence. A reduction in the annual flow of subsidies may endanger the stability of the intermediary; supervisors must thus be concerned with the degree of dependence of a given MFO on such volatile sources. Similarly, donors or governments may periodically flood MFOs with funds to target a particular clientele or industry without due concern for creditworthiness. Rapid and disproportionate growth in the number of borrowers is highly correlated with portfolio losses from default.

This study concludes by noting the diverse institutional designs of MFOs and the variety of economic and legal environments in which they operate. Institutionally, MFOs run the gamut from BancoSol, a commercial bank in Bolivia — to BRI Unit Desas, state-owned microlenders in Indonesia — to client-owned credit cooperatives and village banks, found worldwide. NGOs lend to microenter-

prises in environments as diverse as The Gambia and Chile. This broad array precludes the creation of universal regulation and supervision of these entities. This paper points out the lack of experience because of the newness of this field and emphasizes the importance of avoiding policy backlashes that might result from the failure of MFOs and other intermediaries because of poor regulation and supervision. Such failures and policy backlashes would jeopardize any progress toward improving access of microentrepreneurs to financial services.

SECTION THREE

ACTION RESEARCH PROGRAM III: NONFINANCIAL ASSISTANCE

ECUADOR MICROENTERPRISE SECTOR ASSESSMENT: SUMMARY REPORT

GEMINI Technical Report No. 8[1]

John H. Magill
Donald A. Swanson
April 1991

This study of the micro- and small-scale enterprise (MSE) sector in Ecuador was conducted to examine the characteristics of MSEs in the country; analyze the potential for growth and expansion in the sector; assess the effectiveness, coverage, and adequacy of support services to MSEs; and recommend strategic options to improve support for MSE development in the country. The study was commissioned by USAID/Ecuador and the research was carried out between July and October 1990. This paper is a summary of four other papers (GEMINI Technical Reports No. 9-12) prepared as part of the study.

Since the mid-1980s, Ecuador has experienced a proliferation in international, national, and local programs for financial, training, and technical assistance to the Ecuadorean MSE sector. This has been prompted by a growing recognition that the MSE sector is a significant contributor to the economic and social well-being of the country, and that it is the major generator of employment opportunities in urban areas.

The MSE sector in Ecuador is large, dynamic, and heterogeneous. There are an estimated 250,000 to 350,000 micro- and small-scale businesses in the country. Although the majority of these businesses are unregistered informal sector enterprises, many are either registered businesses or in various stages of formalization. Together, these firms represent a major (if not the major) source of employment in urban areas, providing jobs to 750,000-1,000,000 people (39 to 53 percent of the economically active population).

The sample of firms surveyed for this study were uniformly small businesses with 1 to 12 employees. Seventy-five percent of the firms had less than $5,000 in total assets. Although many of the firms were established within the past three to five years (perhaps in response to the economic downturn of the 1980s), there is a sizeable number of firms that have been in existence for more than 10 years. Female-owned businesses tend to be younger than male-owned businesses, perhaps reflecting the immediate effects of the economic problems the country has faced during the past 10 years and the resulting entrance of more women into the income-earning labor force.

Most of the businesses represent a marginal existence. Wages were generally lower than the national minimum wage, and substantially below those of the urban, formal sector. Profitability is restricted, with only 18.7 percent of the sampled firms having a positive social-benefit cost ratio. Declining sales and declining profitability were identified as major problems by nearly one-half of the respondents.

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[1] This Technical Report is also applicable under Action Research Program (ARP) I: Growth and Dynamics and ARP II: Financial Assistance.

Success, as measured by sales, employment generation, and profitability, varies significantly by the subsector of the economy. Firms having the highest employment growth rates were found in the metal working, woodworking, textiles, food products, and basic manufactured products subsectors. The most profitable firms were located in the food products, basic manufactured products, barber and beauty, and repair subsectors. The highest profits on a per-employee basis were found in the small retail stores, food products, and basic manufactured products subsectors, whereas the highest average wages were found in the food products, leather, and basic manufactured products. Strategies to maximize impact in income, profitability, or employment should take these apparent differences into account.

The MSE sector provides significant employment and income opportunities to women. Female-owned businesses tend to be:

- Newer and smaller than male-owned businesses;
- Concentrated in certain industry subsectors (specifically commerce, textiles, food products, and beauty shops);
- Located in the home more frequently than male-owned businesses;
- More likely than male-owned businesses to employ family members;
- More likely than male-owned businesses to employ other women; and
- Just as efficient as male-owned businesses in the same fields in terms of profitability, rate of growth in employment, and rate of growth in sales.

Women face special constraints to running a small business. They are less likely to gain access to financial resources, are less likely to have technical training, and are less educated than their male counterparts. Programs designed to help female-owned MSEs should take these factors into account.

Lack of access to financial resources, especially in the form of credit for working capital, is the major constraint facing the sector. Resources available through the formal sector, either through specialized programs or ongoing credit lines, meet only a small percentage of the existing demand for credit.

Weak administrative and technical capabilities, both of MSE proprietors and employees, is another major constraint to the growth and success of MSEs. The respondents had only limited access to training programs, and these tended to focus on basic managerial and administrative skills rather than on more complex issues such as production and marketing technologies.

The ability of the sector to expand is dependent on market capacity. Evidence of the ability of local markets to absorb expanded production (essential to increase employment and incomes) was mixed. There was evidence of considerable competition and indications of declining profitability due to limited sales and turnover. The similarity of products produced by MSEs and the absence of marketing strategies involving segmented markets or differentiated product lines are further limitations in local markets. Finally, Government of Ecuador (GOE) policies have had a negative impact on the quality and prices of MSE-produced goods and services.

Although many factors have an impact on the growth potential of MSEs in Ecuador, three factors are particularly important. These are the availability of financial resources, the availability of key support services, and the major policy impediments to operating in the informal business sector.

Most MSEs are effectively excluded from participation in formal sector financial services. The country's liquidity crisis, coupled with restrictive monetary policies aimed at curbing inflation, has reduced the availability of loan funds in the country and has significantly raised the effective cost of credit. Commercial banks have only moderate interest in providing loans to micro- and small-scale businesses, with the result that most funds available to the sector through the banking system are derived from international donor sources.

The Ecuadorean credit union movement, although weak, is the major lender for small-scale enterprise activities in the country. Estimates based on preliminary evidence indicate that credit unions loan $10 to $15 million to 250,000 to 300,000 small-scale enterprises each year. This level of activity, however, has not resolved the basic problems of developing an adequate source of funding for the sector as a whole, or of providing a graduation mechanism for clients of the specialized nongovernmental (NGO) programs.

Three factors impede the development of effective financial services for the MSE sector. These factors are:

- First, as long as the supply of credit available to the sector depends on special credit lines provided either by the GOE or by international donor agencies, credit available to the sector will be inadequate, sporadic, and inequitably distributed;

- Second, the current institutional approach to credit, whether through the banks, credit unions, or special-purpose MSE programs, fails to conform to the business requirements of the enterprises that are being assisted. Instead of fixed-term installment loans, businesses need small amounts of credit that are accessible on a moment's notice and the outstanding balance adjusted upward or downward to meet daily liquidity needs; and

- Third, current programs and activities are not developing effective linkages between small-scale entrepreneurs and sources of financial services. Even if the programs are successful in developing creditworthy clients, they are not developing a method by which those clients can gain access to reliable, long-term sources of financing.

Institutional support to MSEs has increased substantially during the past few years. Although 10 years ago there was no interest in the sector at all, more than 10 international donors, 3 government ministries, and 30 local institutions are currently involved in providing resources and support to MSEs.

The past eight years have been a period of growth and expansion in the number of private foundations and other NGOs involved in providing services to MSEs. This period has also been one of experimentation, and more than 30 NGOs have become involved in providing services to MSEs and have begun to explore different strategies of reaching MSE clients. Most of these organizations are technically and financially weak institutions with little prior experience or knowledge of small-scale business operations. Only about 10 are solid institutions with a good-to-excellent track record of work with MSEs.

These institutions offer a similar set of services, focusing almost exclusively on general business and administrative training and technical assistance that is geared to credit supervision. But the small-scale entrepreneur in Ecuador is unprepared in other areas — particularly in production technologies and

knowledge of markets and marketing — to compete effectively and successfully. Current resources for meeting these needs are inadequate.

The principal weaknesses in the present support system include:

- A low coverage rate (not more than 5 percent of the MSE population is being reached by current programs);
- A lack of sustainability in most programs;
- Generalized programming, providing a minimalist level of services; and
- A high-cost, low-impact approach to assistance delivery.

Most policies affecting MSEs in Ecuador are broad and affect the industrial, commercial, and service sectors in general. The major issues identified in the sector assessment as having a negative impact on the MSE sector include:

- A high and variable rate of inflation;
- Arbitrary and artificial interest rates;
- Exchange rate policies;
- Cumbersome administrative procedures;
- Onerous labor laws;
- Trade policies (including differential tariffs and protected transportation monopolies);
- An absence of export promotion programs and incentives; and
- The absence of adequate municipal infrastructure.

Of the policy constraints to MSE growth and development listed above, two are of primary importance and need immediate attention. First, the distortion in domestic financial markets caused by high inflation and the GOE's efforts to control inflation through a restrictive monetary policy have had the effect of restricting the flow of financial resources to the sector and of increasing the cost of those financial resources. Second, if legalization of informal sector businesses is viewed as a necessary objective, steps must be taken to make it easier to register a business, make it advantageous to do so, and reduce the direct and indirect costs of being a legally registered business. At the present time the system provides only disincentives to registering small-scale businesses legally.

To have a long-term, sustained, and positive impact on the MSE sector in Ecuador, a national strategy must conform to several criteria. It must reflect national priorities and objectives, take advantage of positive natural dynamics in the sector, build realistically on the sector's growth potential and prospects, and address major constraints and impediments to the expansion and success of small-scale enterprises. At the same time, such a strategy must not introduce distortions that make the sector more vulnerable and marginalized, and it must minimize the drain on scarce national resources. Finally, to be successful, a national strategy should produce an effort that is effective, efficient, and sustainable.

Any national strategy to support the growth and development of MSEs should have three clear goals: to increase employment, to increase productivity, and to increase income.

Based on the findings and conclusions of the four background studies completed as part of this sector assessment, to have a positive developmental impact a comprehensive MSE development assistance strategy for Ecuador must accomplish several strategic objectives. It must:

- Develop effective and sustainable access to financial resources;
- Address managerial and administrative deficiencies of MSEs;
- Address the principal policy constraints to the growth and development of MSEs;
- Resolve major marketing constraints to MSEs;
- Be aggressive in expanding market opportunities; and
- Be cost-effective.

A national strategy to develop effective and sustainable access to financial resources must:

- Deepen existing domestic financial markets;
- Develop effective relationships between MSE clients and formal sector financial institutions; and
- Build credit programs that meet the business needs of the small-scale entrepreneurs.

This would necessitate major changes in GOE policies and would require specific program efforts.

An integrated national strategy should also focus on improving the quality of institutional support to the MSE sector. NGOs providing services require support to develop effective programs and services, to reorient their training programs to include marketing and production issues, and to facilitate MSE access to appropriate technical training and assistance.

Improving the general business climate for MSEs through improvement in the policy environment is also essential, although less amenable to specific project interventions. In particular, policies that restrict the flow of financial resources to the sector and that provide strong disincentives to legalizing and formalizing business activities should be revised.

Whether or not the MSE sector is capable of significant expansion, either through the growth of existing firms or the entrance of new ones, is a question of market capacity. Unfortunately, not enough is known about market capacity in Ecuador. A national strategy for MSE development should contain a strong market research component.

Finally, as a general criterion, a national program to support MSEs in Ecuador must be cost-effective. It must reach a significant portion of the MSE sector, instead of the tiny fraction now served by existing programs. It must generate benefits for the beneficiaries — in business growth, expansion, and income generation — in excess of the direct and indirect costs of providing the service. And, it must minimize the drain on scarce national resources.

Microenterprises have been a mainstay of the Ecuadorean economy, providing employment and income for a substantial sector of the population. In the absence of a robust formal sector economy, Ecuador depends to a great extent on the ability of the MSE sector to continue to expand and absorb a growing labor force.

The ability of the MSE sector to continue in that role in the future depends on the resolution of three major issues that currently restrict growth and development:

- The lack of access to financial resources;
- The lack of access to other effective support services designed to overcome weaknesses in management, technology, and marketing; and
- The negative business climate that affects Ecuador generally.

A comprehensive and coordinated national strategy to deal with these issues would have a positive impact on ensuring the long-term growth and viability of MSEs in Ecuador.

TECHNOLOGY — THE KEY TO INCREASING THE PRODUCTIVITY OF MICROENTERPRISES

GEMINI Working Paper No. 8

Andy Jeans
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Mike O'Donnell
November 1990

Microenterprises involved in production and processing play a key role in the economies of developing countries as a basic source of goods and services, income, and employment. Sustainable improvements in the productivity and competitiveness of these microenterprises are essential for their growth and for the creation of new wealth and opportunities for the people involved. Although credit can help expand the number of enterprises, inventories, and market share, credit alone is insufficient to generate the productivity increases needed for long-term economic growth and poverty alleviation.

The minimalist credit argument (which contends that there is a large number of very small but low-income producers who can significantly expand their output and associated income if provided with access to small amounts of credit) only holds true if entrepreneurs already have the necessary skills and access to information and hardware for alternative technologies. For many microentrepreneurs this is not the case. The provision of credit alone in microenterprise programs does not necessarily help overcome technological bottlenecks. Unaccompanied credit may only allow for a marginal increase in the size or profitability of an existing business if technologies are unchanged, unless the enterprise is primarily for vending rather than for production. This study suggests that without upgrading technology, the results of minimalist credit programs will show a shifting of employment and income from one producer or seller to another, rather than show a sustainable increase in productivity.

Technology, a key factor of economic growth, includes equipment, tools, products, processes, materials, and skills, in addition to the organization of production and marketing. Microentrepreneurs frequently are constrained by a lack of information about technologies appropriate for their resources and skills. Successful microentrepreneurs in production and processing are often involved in the innovation, adaptation, and dissemination of technologies; however, their efforts are often limited by inadequate resources, poor communications, uncertain markets, and a nonsupportive policy environment. As a result of these limitations, the full potential of technology to increase productivity in the microenterprise sector is not being achieved.

Technological change can enable microenterprises to reduce costs through faster production, labor and time savings, substitution of cheaper materials, lower fuel costs (through savings or substitution), and increased process efficiency (including developing uses for byproducts). Better-informed selection and organization of equipment, tools, and labor can reduce the working and fixed capital requirements of entrepreneurs and can help them use credit more effectively. Appropriate new technology can raise product output, quality, consistency, reliability, and packaging to open up new markets. Additionally, technological advances can also raise the marketing power of microenterprises by diversifying their raw-material base and increasing product shelf life.

Three examples of the influence of new technology are provided. The first example is of micro-hydro-powered milling units in Nepal in which a credit program and national policy reform combined

with new milling technology has resulted in aiding the rural population by reducing the labor time and arduousness of women's work in rice hulling and mustard seed crushing.

The second example is of palm oil expellers in Central and West Africa where a new type of palm oil extractor, with technology based on a modification of accepted technology, was used to increase productivity at a relatively low cost.

Interestingly, the project is also supporting an NGO in Zaire to provide technical assistance to organizations in other countries in the region. This technical assistance includes the provision of training to interested potential manufacturers of the new extractor, as well as training in marketing and the creation of an international network of organizations involved in small-scale extraction.

The final example is of a charcoal stove in Kenya that was adapted from traditional technology and incorporated features of the technology used in Thailand. This charcoal stove project was more successful than similar projects because the private sector was given a leading role in the production of the stove. This factor led to an increase in subcontracting to informal sector microenterprises. The introduction of this stove not only provided new opportunities for MSEs, but also provided a more-efficient stove for people to use (the stove reduces charcoal use and waste, lasts longer, and is more easily portable). By using existing artisans, the project saved much time and money because there was no need to establish a new infrastructure and train inexperienced workers.

It must be recognized that technological change is not simply a development panacea. The scale of technology has important implications for labor displacement. Poor people, in particular, are vulnerable to loss of jobs and casual employment from the introduction of new technologies. In the short run, an upgraded traditional technology may reduce employment per unit of output. However, by increasing the quantity of output to meet an expanding market, the total employment in the industry may increase in the long run. Nevertheless, the social impacts of displacing hired labor can be serious because these impacts fall on the unskilled or the landless poor, and may disproportionately affect women, whose traditional sectors are often improved by new technology and are then taken over by men.

Microenterprise support programs can assist the innovation, adaptation, and dissemination of technologies by working with entrepreneurs, their suppliers, and their customers to identify resources and constraints for increasing productivity. A systems approach, such as subsector analysis, can help pinpoint where and what type of technological interventions will be most effective. Support should strengthen communication channels so that both entrepreneurs and donor agencies are aware of successful developments elsewhere, particularly technological developments within the informal sector.

Technological training can provide operation and maintenance skills necessary to sustain small-scale, decentralized workshops and can create new possibilities for local manufacturing. Training should be tailored to the immediate needs expressed by small producers, and such training should be sensitive to those constraints facing entrepreneurs with responsibilities outside of the enterprise. The training should be provided on a fee basis, adopting a needs-oriented approach that emphasizes working directly with producers, and building on the resources and skills of the client and student. Finally, training should be presented in short courses, geographically close to the target businesses, with child care provided if necessary to allow access to women. The learn-by-doing approach is generally the superior method for teaching micro-producers.

An effective way to provide more complete assistance to enterprises in different socioeconomic categories is to link technological support with financing and business support programs. This does not mean that the same institution needs to provide all these forms of assistance. Indeed, it is often more

effective to have several institutions specializing in the various functions, provided there is adequate coordination among them.

Some donor policy reforms could increase the use of new technologies by microenterprises. These reforms include:

- Substituting sectoral aid for project aid, supporting smaller projects and enterprises;
- Implementing projects through NGOs;
- Eliminating tied aid;
- Obtaining technical assistance and equipment from other developing countries;
- Financing recurrent costs and local currency costs rather than just capital and foreign exchange costs; and
- Supporting more research and development for appropriate technologies.

Assistance agencies can use their practical experiences from improving microenterprise production quality and reliability to persuade governments and regulatory bodies to create a more positive environment for the growth of small-scale production. Assistance agencies can also bring micro-producers and technical advisers into contact with government agencies and larger industries so that national policies will be more likely to take the interests of microenterprises into account. In a notable case, the growth of the micro-hydro industry in Nepal, described above, has been accelerated by close collaboration among the National Electricity Authority, the Agricultural Development Bank, and the small firms that design and install the equipment and civil works. The National Electricity Authority changed its regulations to allow private power generation in units with capacity of less than 100 kilowatts. The Agricultural Development Bank opened a special loan window for rural electrification projects.

It may be necessary for microentrepreneurs to organize for policy reforms to be achieved. For example, by helping to forge stronger links among producers, an international organization enabled a group of artisanal fishermen in Kerala, India, to lobby successfully for new legislation to regulate the exploitation of near-shore fishing resources.

A SUBSECTOR APPROACH TO SMALL ENTERPRISE PROMOTION AND RESEARCH

GEMINI Working Paper No. 10

James J. Boomgard
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Donald C. Mead
January 1991

The subsector approach aims to provide operational direction for small enterprise promotion. Other approaches have tended to be descriptive rather than diagnostic. The subsector approach is both diagnostic and prescriptive. It places considerable weight on understanding the interactions — both competitive and complementary — among firms of different sizes and with different functions, within a subsector, including those involved in manufacturing, commerce, and services.. Moreover, this approach acknowledges the potential value of indirect interventions, those that route micro- and small-scale enterprise assistance via intermediaries to gain leveraged opportunities to maximize the impact of the intervention.

Subsector research views small enterprises as interacting with other firms — both large and small — in vertical production and distribution systems. By examining the competitive position of firms in alternative supply channels, subsector research aims to understand the dynamic forces at work. The dynamics, in turn, often prove key to identifying growth opportunities and constraints, and hence the potential for policy or project interventions.

Subsector research revolves around four principal concepts: verticality, coordination within channels, competition between channels, and leverage. Verticality is central. Small enterprises are participants in vertical production and distribution systems. They procure inputs from a variety of suppliers and market their output through other firms. Small enterprises face competition from both large and small firms, which are vertically integrated to differing degrees and use diverse technologies. Because of these relationships, coordination with firms performing related functions is central to small-firm dynamics, as is competition with alternative supply channels.

Leverage, crucial to cost-effective intervention, is highlighted by the vertical perspective. Because of high transport and communications costs, individual contact with hundreds of small firms can be very expensive. Leveraging promotional efforts, by intervening in ways that affect a large number of small producers at a single stroke, reduces per-unit costs. By focusing on a single product market, subsector research facilitates the identification of constraints affecting a large number of small firms. And within a given subsector, the vertical perspective allows the analyst to seek out opportunities for highly leveraged interventions. It highlights "system nodes," the points at which a large volume of product passes through few hands or restricted geographic space. In many cases, for example, wholesale markets or distribution points offer opportunities for contacting dozens, perhaps hundreds, of small firms in a single visit. Similarly, a handful of key input suppliers can channel improved products or information to a multitude of small clients.

Subsector analysis begins with the selection of a product group in which small enterprises are important; selection is usually based on enterprise size, location, equity implications, or expected patterns

of change. The analyst must then identify the principal functions, participants, and channels of the product group. In the case of the sorghum beer subsector in Botswana, for example, the important functions (or vertical levels) include malting, brewing, and retailing. The key participants include home brewers (vertically integrated in differing degrees), commercial maltsters, factory brewers and retailers.

The subsector is disaggregated into a matrix of functions and participants delineating the principal channels through which raw materials are produced, transformed, and distributed to final consumers. The resulting grid is called the subsector map and it highlights the vertical relationships and competitive positions of subsector participants.

After outlining the subsector map, the next step is to identify overlays of special interest to the investigation. Common overlays include the number of enterprises, employment, sales, product volume, or inventory holdings within each function and channel. Other, less-quantitative, overlays can be included; tracing the variety of contract relationships in different channels or the sources of trade finance are examples.

By interviewing subsector participants and key informants, and supplementing with selective and focused data collection, it has been possible to gain a basic understanding of subsector dynamics in a relatively short time, often as short as two to four weeks. Three vantage points have proven especially valuable in viewing subsector dynamics. First, firms operating at **system nodes** — usually large wholesalers or input suppliers — are often well placed to observe changes in the system. Second, **enterprise budgets** reveal cost structures and sources of MSE competitiveness. They prove central to forecasting the rise and fall of alternative production and distribution channels. Third, **consumption studies** can be invaluable in estimating aggregate output across all channels, and in offering insights into future demand patterns.

To identify cost-effective interventions, one needs to look first for highly leveraged opportunities. Two commercial maltsters supply sorghum malt to 16,000 home brewers, with the potential to reach 40,000 more. Thus promoting improved malt through commercial maltsters offers a potential gearing ratio of 20,000:1. The possibility of rent-seeking behavior by commercial maltsters would need to be recognized in the design of a project with such an approach.

Four general policy implications emerge from these case studies. First, opportunities for policy reform are frequently subsector specific. General cross-industry studies normally fail to identify these opportunities for improvement through policy change. Second, policies may impinge on small firms indirectly, through input suppliers or output distributors as in Botswana where home brewers faced restrictions on their retailing activity. The vertical dimension of subsector research was crucial to detecting the policy constraint. Third, policies influence small firms through their effects on competing supply channels. The misapplication of licensing laws on behalf of large sorghum beer retailers is a clear example of this. In other settings, the availability of subsidized credit and tariff and tax benefits frequently confer advantages on large firms rather than their small-scale competitors. Fourth is the reminder that policies represent a classic application of leverage.

Practitioners must recognize the potential dangers present when high leverage is achieved via large firms. When a few large firms limit competition, rent seeking may seriously skew the distribution of project benefits. In some cases, contingency contracts or share contracts where donors or other sponsors participate in the benefits will be necessary to ensure performance that improves the position of MSEs.

Subsector research facilitates the understanding of major dynamics affecting MSEs, the identification of system blockages, and high-leverage intervention points. Moreover, these insights can often be gained relatively rapidly and at moderate cost. Two additional attributes also merit discussion.

First, subsector research can improve accuracy and reduce the cost of data collection. Its emphasis on data collection at system nodes frequently allows estimates of small firm activity with far greater precision than would be possible in a cross-section survey of small enterprises. For example, interviews with two maltsters in Botswana enabled projection of home brewing output of 16,000 home brewers. Moreover, assembling employment, volume, and budget overlays forces a juxtaposition of available data in ways not usually attempted. Reconciling the numbers frequently identifies candidates for improved data collection.

Second, the interventions identified in subsector analysis can often be characterized as "institutionally light." Because they focus on activities within one subsector, the interventions identified are often limited in scope, cost, time, and complexity. This, combined with their wide variety, suggests that subsector interventions may most appropriately be spliced onto existing organizations.

The authors consider subsector analysis to be a powerful tool for identifying cost-effective MSE interventions. Yet the approach has important limitations as well. Because subsector analysis focuses on system linkages and bottlenecks, it is less effective in analyzing constraints internal to the firm. Also, the vertical emphasis in subsector work makes it ill suited for the analysis of activities such as commerce, transportation, and finance, which cut across a great many vertical production and distribution systems. Finally, although it is recognized that vertical linkages strongly influence the competitive potential of small producers, the ability to analyze these coordinating mechanisms is still in its infancy. Certain variables consistently play a major role in influencing patterns of linkages among firms: economies of size in transactions; efficiency in retailing, packaging, and production; and the need to communicate product specifications. Other variables, such as the importance of trust, the need to minimize opportunistic behavior, and the effects of contracting methods, are much more difficult to evaluate. The role and importance of these variables in research is just beginning to be understood.

OPPORTUNITIES FOR INTERVENTION IN THAILAND'S SILK SUBSECTOR

GEMINI Working Paper No. 27

Steven Haggblade
Nick Ritchie
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The silk subsector in Thailand holds enormous promise as a potential engine of income growth for poor village households. But to take advantage of this growth, most producers will have to shift from the low-productivity, low-growth traditional markets to the rapidly growing tourist and export markets. Because large factory weavers and reeling companies dominate these growing segments of the market, the most promising entree into these ascendant channels for households is to specialize as producers of weft yarn, which forms the horizontal weave in fabric, for the weaving factories. This move will require modest advances in technology at all stages of production — introduction of hybrid mulberry, yellow hybrid silkworms, and improved reeling equipment. But by specializing in this way, households can grow in tandem with the modern Thai silk weaving industry and roughly double their labor productivity at the same time.

The achievement of widespread impact requires the use of leverage. Generally, there are four principal sources of leverage: input suppliers (in the case of the Thai silk subsector, the Department of Agriculture extensionist who supplies the eggsheets), marketers of the micro- and small-scale enterprise output (yarn merchants), geographic clustering (assembly points for obtaining eggsheets and for delivering cocoons), and policy leverage (tariff policy, import restrictions, and eggsheet subsidies).

Leverage frequently requires indirect interventions. It often entails intervening on behalf of rural households by working with other participants, up- or down-stream in the subsector. An example of indirect interventions is the effort that will be needed to lobby for reduced subsidies on eggsheets in order to provide more eggsheets to the system. Several private enterprises would benefit from this change, whereas the household producers would gain increased access to white hybrid eggsheets, although at a higher price. Indirect intervention is an issue that may cause philosophical problems for some aid agencies. Ultimately, we must recognize that leveraged interventions, even if indirect, have the potential to affect many times the numbers of people than we would affect working with only a few entrepreneurs at a time.

To facilitate the shift of households to weft yarn production, several promising opportunities appear for leveraged interventions. These include:

- Mulberry propagation and distribution through nurseries and commercial farmers;
- Lobbying for reduced subsidies on eggsheets;
- Distributing improved reeling equipment via yarn merchants;
- Information dissemination at assembly points; and
- Developing cocoon drying equipment appropriate for small reeling mills.

In the future, household producers may find that rearing white cocoons offers a second promising niche. Today, however, white cocoons are both expensive and risky. They require considerable investment in land and capital and depend on uncertain government supplies of hybrid eggsheets and quota protection from foreign white yarn imports. In terms of technology, the transition to white cocoon rearing represents a logical evolutionary progression from rearing yellow hybrids. But CARE will need to monitor yarn import quotas, weaving industry yarn standards, import prices, and white hybrid cocoon quality to determine where and when it becomes sensible to pursue this second option. Under either option, CARE can play a vital role in this evolution by acting as an informed industry observer and honest broker actively facilitating household access to these promising niches.

Traditionally, silk production has been a part-time female activity. With the silk subsector moving toward greater technology in the form of hybrid white cocoons, hybrid mulberries, and advanced machinery, many of the jobs have been taken over by men. An example is the production of hybrid mulberry, which requires a higher investment and land requirement, making it a full-time activity that is male dominated. Additionally, the advanced machinery, because it is so much more efficient, requires fewer laborers, thus further eliminating female jobs.

Although the proposed interventions will require further review, the array of options suggests that it may well be possible to intervene in ways that will facilitate household access to promising, growing niches. The availability of leverage points offer prospects for assisting tens of thousands of poor households in a cost-effective manner.