

PN - ABR - 806

for 5/27/86

Measuring Socio-
Economic Impact
of Credit on SMI:
Assessment of the
Monitoring System
Used by the
Alexandria
Businessmen's
Association, Egypt

GEMINI Technical Report No. 76

GEMINI

GROWTH and EQUITY through MICROENTERPRISE INVESTMENTS and INSTITUTIONS
7250 Woodmont Avenue, Suite 200, Bethesda, Maryland 20814

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Measuring Socioeconomic Impact of Credit on SMI:

Assessment of the Monitoring System Used by the Alexandria Businessmen's Association, Egypt

by

Linda Oldham

Development Alternatives, Inc.

and

**Hager El Hadidi
Hussein Tama'a
Michele Suliman Nashed
Sherif El Diwany
Mahmoud Hussein
Mohamed Abdel-Aziz
Mohamed Sakr**

Integrated Development Consultants

May 1994

This work was supported by the U.S. Agency for International Development Mission in Egypt through a buy-in to the Growth and Equity through Microenterprise Investments and Institutions (GEMINI) Project, contract number DHR-5448-Q-67-9081-00, and by GEMINI core funding, contract number DHR-5448-C-00-9080-00.

ACKNOWLEDGMENTS

This study was carried out in Egypt between October 13 and November 26, 1993, under the direction of Robert Kirk, Office of Finance and Investment, U.S. Agency for International Development, Cairo. Magdi Khalil, also of the Office of Finance and Investment, helped supervise the study.

The staff of the Alexandria Businessmen's Association gave generously of their time. Thanks go to Nabil El Shami, Program Director; Yousri Hamouda, Operations Manager; Flora Makram, Director of the Management Information Systems Office; Ezz-el-Din Sharkawi, EQI technical advisor; and, last but by no means least, Fernando Cruz, the NCBA technical advisor. The extension workers whose clients turned up in the study's sample in some cases made extraordinary efforts to put us in touch with their clients.

Those of us who carried out the study have all been working in small industry in Egypt for many years, and much of our work has been carried out under conditions of economic boom. It was a fascinating experience to work on some of the same topics under conditions of economic recession and duress for most of the small and micro industry sector, and to learn how a solid credit program supports small-scale proprietors and their workers under these conditions. We hope that our study can make a valuable contribution to the work of the new foundations just starting up in Egypt.

Linda Oldham
Hager El Hadidi
Hussein Tama'a
Michele Suliman Nashed
Sherif El Diwany
Mahmoud Hussein
Mohamed Abdel-Aziz
Mohamed Sakr

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EXECUTIVE SUMMARY

This study was undertaken by a team supported by the Growth and Equity through Microenterprise Investments and Institutions (GEMINI) Project. The study presents findings on the methodology used by the Alexandria Businessmen's Association to assess the socioeconomic impact of the Small and Micro Enterprise Project (SMEP), which has been carried out by ABA with support from the U.S. Agency for International Development (USAID) since 1990.¹ The purposes of the study were to:

- Evaluate the accuracy of the impact data being collected by ABA;
- Make recommendations concerning the need for changes in and additions to the indicators used for measuring impact; and
- Determine progress toward the goal of graduating ABA borrowers to the formal banking sector and provide recommendations to facilitate this development.

The main conclusion of this study is that the ABA program has had an enormously salutary impact on its small and micro industry (SMI) clients, but that the ABA method of measuring socioeconomic impact has missed most of that impact, for a variety of reasons. The ongoing willingness of SMI proprietors to take and repay loans at market interest rates is a far better indicator of program success than that offered by the socioeconomic impact monitoring system.

Examination of the ABA socioeconomic impact monitoring system showed a range of methodological problems. The research instrument is a brief questionnaire administered to each client each time he applies for a new loan. The questionnaire asks about preparticipation and current status of the borrower in terms of employment, raw materials acquisition via cash or credit, marketing channels, form of production (weight/piece/volume), presence of bank accounts, achievement of growth in income, use of increased income, and training needs, along with a range of information on the workshop (or the small industrial firm) and its owner (such as licensing status, age, and marital status).

Immediate problems include the following:

- The questionnaire is administered by extension workers as part of the loan application process, and is part of a very full working day. There is no incentive, either financial or in increased understanding, for the extension workers to complete this form accurately, and it has no implications for the granting of loans. The applicant also has no incentive to provide accurate information.

¹A critical distinction is made in this paper, and in the socioeconomic impact monitoring of ABA, between small and micro industry (SMI) and small and micro enterprise (SME). Although the project appears to have been designed with the idea of ultimate expansion to include commercial and service enterprises, it began with loans to SMIs (small industrial firms or workshops producing goods or using machines for repair and maintenance). The project was named Small and Micro *Enterprise* Project because of the uncertainty of the size of the SMI population, and to leave open the possibility of expanding the program to small-scale nonindustrial activities, as happened in September 1993 with the explicit inclusion of commercial enterprises in the program.

- The questionnaire is highly redundant: each time it is administered, data are collected on the same preproject participation point in time and on current status; these two data points (and only these two points) are retained in the management information system (MIS). But, more important, the preproject status point is reported differently for the same client from one form to the next, and the new data accepted as more correct than the old. Thus, data presumably stable over time are changed, and their reliability must be questioned.
- Some of the data provided are actively misleading. For instance, the figure on "existing jobs strengthened" is simply the total number of jobs in workshops that have received credit; "strengthening" is neither defined nor measured.
- The data from the questionnaire are aggregated and used to generate quarterly charts and tables showing project performance. However, because of the points mentioned above, these charts and tables are much more suitable for public relations than for generating increased understanding or for use as a basis for management decisions.
- The language of the questionnaire, like the philosophy of the project itself, presumes growth through credit and does not allow for the possibility that other significant consequences of credit — such as staying in business and not going under — may be occurring given the current conditions of sharp economic recession.
- The project is evolving, but the questionnaire is written in stone. Many questions of interest to program management cannot be investigated on such a basis, including the recent acceptance of merchants (in addition to production workshops) as clients, and the earlier increased emphasis on expanding the number of female beneficiaries. Adaptation of workshops to the recession has not been investigated, and the impact of further economic change and its implications for the program market are unmeasurable in this format.

For this study, the team took a random stratified sample of workshops in the program and administered a questionnaire to them on the same issues covered in the ABA questionnaire. The GEMINI data show that the ABA workshops were founded by their current owners an average of 12 years ago, during the boom years of SMI development in Egypt. More than 80 percent of workshop owners have five employees or less. They are overwhelmingly renters occupying their first premises. Most are males between the ages of 30 and 45. Forty percent are the sons of small-scale industrialists. The majority entered their trades as apprentices at an early age.

More than half of the production in these SMIs is on the basis of prior order. The workshops receive advances from clients, but these advances do not cover the costs of raw materials. Half of those producing on prior order do not receive full payment even upon delivery, but must wait unpredictable amounts of time to recover their investments. Those producing without prior orders also cannot recover their costs at time of sale but must wait increasing periods of time for payment. Under recession conditions, supplier credit has contracted sharply, as have other sources of liquidity. Thus the amount of working capital that was sufficient several years ago is not sufficient now, and many producers find themselves stopping work in the middle of the month because of lack of raw materials.

The GEMINI data were also compared with the data in the ABA's MIS on the same clients. ABA data show an increase in employment under recession conditions; GEMINI data show a decrease. Neither set of data can measure the reduction in working hours and piece-rate compensation that has occurred, but the GEMINI findings show a meaningful decrease. Both sets of data show a reduction in

production costs because of loans, though ABA data indicate a much sharper reduction. Most of this reduction is the result of cash purchase of raw materials.

ABA data show an improvement in product quality because of the loans; GEMINI data do not. Here the ABA data are inconsistent with observations of strategies for maintaining a market under these economic conditions: consumers are currently much less interested in quality than in price. ABA data show increases in unit price, volume of sales, and income to producers. GEMINI data show little increase in unit prices, but confirm increases in sales and income because of increased ability to purchase raw materials with loan money while awaiting purchaser payments. However, workshops are still producing at lower levels than before the recession.

The conclusions and recommendations of the GEMINI study can be summarized as follows:

- The ABA socioeconomic questionnaire inevitably biases responses of clients in the direction of growth, which may not have occurred. The questionnaire is not an effective tool in measuring program impact under recession conditions. There was no inherent advantage in the GEMINI format, except that the questionnaire was administered by social researchers, and qualitative interviewing made up for some of the inevitable deficiencies of a highly structured format.
- Regarding program impact, the availability of ABA credit has been a godsend under the circumstances of recession. The credit enabled workshops to keep producing when the merchants and subcontracting workshops were slow to pay, and supported hedging through diversification. It kept many workers on the job for more hours per month than they could otherwise have worked. ABA's rapid processing of loans made it possible to fill the liquidity gap, or some of it, quickly when unexpected payment delays occurred or when sudden emergencies sapped already limited working capital.
- Concerning graduation of clients to the formal banking sector, the banks have yet to reach the point of active understanding of the potential of such loans. Thus ABA's vital role in extending credit to this sector is likely to continue for the foreseeable future.

Primary recommendations include the following:

- Administer the socioeconomic form beginning with the first loan, including personal data (gender, marital status, age, number of dependents, and literacy); do not repeat these questions in subsequent administrations.
- Reduce the other items in the socioeconomic survey form to those most readily quantified, most likely to be answered accurately, and most susceptible to change over time: number of employees by gender, current rates of compensation, subsector of activity, ownership structure, registration status, and channels of marketing of products. Ask these questions only for current status.
- Add a code for client's status with the program, so that late payments and rejections for new loans are recorded as such in a simple form that allows tracking.
- Abandon completely the idea of tracking impact of credit on the client's personal affairs (improvements in household quality of life, expenditures on children's educations) as a

contradiction in terms for a program seeking to put credit to SMIs on a market basis; treat clients as businesspeople rather than as beneficiaries.

- A great deal can be gained from ongoing exploration of client needs and preferences concerning credit extension, and from in-depth focus on emerging issues such as female borrowers, commercial borrowers, or the high incidence of multiple-signature promissory notes, in the leather industry in particular. This, however, requires qualitative studies, not universal monitoring via a structured questionnaire.
- The team recommends that a project social scientist be appointed to manage these ongoing studies to ensure reliable feedback to the program and improved services to clients.
- Because the ABA program has been shown to be financially sound, acceptance of the evaluation criterion of ongoing demand for credit by SMIs as an indication of success would suffice. Such an acceptance would free ABA to fine-tune its system, and to test new approaches, new types of clients, and new strategies for making credit available to special groups; this would be a signal gain in the information available to program management and to USAID.

SECTION ONE

INTRODUCTION

This paper reports on the findings of a study of the methodology used by the Alexandria Businessmen's Association (ABA) to assess the socioeconomic impact of the credit program for small (5-15 employees) and micro (1-5 employees) industry (SMI) being carried out by ABA with support from the U.S. Agency for International Development (USAID) since January 1990.¹

The study was intended specifically to determine the meaningfulness of socioeconomic indicators in use at ABA and the accuracy of the data collected under this system, and to develop recommendations for amendment of the system if warranted. It also, however, provided an opportunity for consideration of some of the new thinking about impact assessment that is gaining currency in the field in light of the ABA experience.

Other activities of the consultants were to include an assessment of:

- The potential for graduation of small and micro proprietors from the program to commercial banks;
- Differential impact of credit on the main subsectors; and
- The feasibility of measuring the linkage multiplier effect (in other words, secondary and tertiary economic benefits) to local households and the local community that have resulted from credit to local SMI borrowers.

The scope of work is included as Annex A.

BACKGROUND ON THE SME PROJECT

The Small and Micro Enterprise Project (SMEP) was established by USAID in Cairo to address the needs of the small-scale industrial sector, primarily through making credit and technical assistance (TA) available. The Project Paper, approved in September 1988, defines the goal of the project:

To expand the economic output of the small and micro enterprise sector of the economy and to increase employment among low income residents of Cairo. (p.10)

The purpose of the project was defined as being:

¹ A critical distinction is made in this paper, and in the socioeconomic impact monitoring of ABA, between small and micro industry (SMI) and small and micro enterprise (SME). Although the project appears to have been designed with the idea of ultimate expansion to include commercial and service enterprises, it began with loans to SMIs (small industrial firms or workshops producing goods or using machines for repair and maintenance). The project was named Small and Micro *Enterprise* Project because of the uncertainty of the size of the SMI population, and to leave open the possibility of expanding the program to small-scale nonindustrial activities, as happened in September 1993 with the explicit inclusion of commercial enterprises in the program.

To create a system that will deliver credit and technical assistance to entrepreneurs participating in the project.

SMEP began by establishing foundations in Cairo and Alexandria to provide credit to SMI. These cities include the majority of SMIs in Egypt. In Alexandria, the foundation was established under the auspices of ABA, which was then operating to represent businessmen in Alexandria vis-a-vis government and to undertake projects of concern to the businessmen; it was not engaged in small-scale industrial support.

THE ABA PROGRAM

USAID provided an \$8 million collateral fund for ABA and paid the costs of start-up, operations through to the point that the fund could be self-financing, and training and technical assistance to the foundation. The collateral funds are held in local banks, but the foundation itself operates the fund, identifying beneficiaries, issuing checks for loans, collecting loan payments, and dealing with threatened default.²

In financial and institutional terms, the ABA SMEP has been a splendid success. The program is well managed and has reached its target audience effectively. A large volume of loans has been expeditiously issued at market rates, and there is still abundant demand in the market. Repayment rates are excellent. The ABA foundation has reached financial self-sufficiency, and operating costs are paid entirely from returns on loans.

The midterm evaluation of this project (Stearns 1992) characterizes the status of the program as of 1992 as follows:

ABA's financial situation is solid. It has a strong capital base, and has reached operational self-sufficiency after only two years of lending, which is a noteworthy achievement. The portfolio quality is excellent, and the organization has experienced no loan losses (p. xii).

At the time of the midterm report, more than 6,000 loans had been issued by the program. At the time of the current study, more than 8,000 had been issued.

Extension of Loans

The SMEP credit extension system is based on intensive outreach in the SMI community. At the time of this study, the program employed 60 extension workers, and this number can be expected to increase.

Extension workers are recruited and trained by SMEP, and each is then assigned a discrete area of the city in which to work. Wherever possible, he is assigned to his district of residence. These extension workers spend the bulk of their time visiting current and potential clients. Extension officers

² A detailed description of the structure and operations of the loan fund can be found in the project's midterm evaluation (Stearns 1992).

receive the greater part of their compensation on the basis of achieving specific quotas of new loans and successfully collecting loan payments.

Socioeconomic Impact Monitoring

A system for monitoring the socioeconomic impact of the credit program on its borrowers is included in the overall management information system (MIS) of the project, whose main purpose is to monitor loan data per se. The socioeconomic data began to be collected about a year after loans were first issued.

The Socioeconomic Questionnaire

The instrument used for collecting socioeconomic data is a two-page, structured questionnaire for each borrower. An English translation of this questionnaire (with comments) is in Annex B. The questionnaire collects data on:

- Personal history: gender, marital status, age, number of dependents, literacy.
- Data on the workshop: ownership structure, subsector of activity, registration status.
- Use of loan funds and of bank accounts.
- Employees: number by gender and permanence before and after participation in loan program, average wage at outset and at present, and reason for increase in wages.
- Impact of loans on raw materials acquisition/storage.
- Form of production: by piece/volume/weight, current monthly value, rise in quality because of loan program.
- Marketing channels: channels in use prior to participation in program (consumer, retailers, wholesalers, exporters, other) and at present; increase in number of clients; and escape from control of large merchants.
- Increased income: achievement of increased income as result of loans; mechanisms of achieving increase (normal price rise, increase in sales price, increase in sales, other).
- Use of increased income: machinery purchase, fixed asset purchase, shop expansion, household necessities, purchase of car, raising educational level of children, savings, other.
- Training needs: interest in participation in technical training (product improvement, machinery maintenance, finishing and packaging, profiting from the library) and management training (bookkeeping, insurance, pricing, marketing, taxation).

System of Data Collection

Each time a given client takes a loan, excepting his first, he provides information to his extension worker on the current status of his workshop and its status prior to his becoming a client of the program. These data are entered into the MIS records for this client.

Regardless of how long a client remains in the program,³ two data points are retained in the MIS system: his status at the time of applying for the first loan, and his status at the time of his most recent loan application. Thus his data at the time of application for the second loan contrast the period before the first loan with the period after the first loan. Data for the application for the third loan cover the same period for the before-project status, but a new period for the current status, that following the second loan, and so on.

Therefore, anyone applying for a third loan already has data in his MIS file covering preproject and post-first loan status. The new questionnaire re-covers the first of these two periods, as well as providing information on postproject status that is one loan more advanced than the old data. When the data are entered, the new postloan status replaces the old in its entirety. In principle, the preproject status data should remain the same, but often do not. In this case, the new preproject status data are substituted, on the assumption that as the client's confidence in the program grows, he will provide more reliable answers to these questions.

No record is kept of how many changes are made to the preproject status data for a given client or for the data bank as a whole, or in what items, but program management believes them to be high. Some portion of the clients show substantial discrepancies in indicators that should be relatively stable — age, number of dependents, and level of education — between one administration of the form and another to the same client.

These data are used to generate quarterly reports on impact of the program on employment, income, and other data for the client group as a whole. They have consistently shown overall increases in income to workshops, employment, cash purchase of raw materials, and presence of bank accounts.

PROBLEMS IN THE DATA COLLECTION SYSTEM

There are multiple problems in this assessment of socioeconomic impact. Some of these relate to the manner in which the ABA questionnaire was constructed, but others are generic to questionnaire-based research. As we argue in a subsequent section, however, the most serious problem lies in the evaluation of credit programs in general (along with many other types of programs not discussed here).

Incentives to Collect Accurate Data

The extension workers in the ABA program have a very full schedule that includes seeking out new clients, making regular visits to monitor use of the loan funds, collecting installments on current loans, and taking measures to avert threatening default. Training in credit extension is thorough and ongoing, and caseloads are heavy.

³ One client had reached his ninth loan by the time of this survey.

Extension workers are paid a basic salary, but most of their income derives from bonuses for client recruitment and repayment rates. No incentive is paid for successful completion of the socioeconomic forms.

The value of the socioeconomic form's data is not readily apparent to the extension worker or client. Decision making on loans is not related to the content of the social forms. There is no analysis of the data collected in this way, which would allow constructive feedback to extension workers on client selection. Information is not collected that bears on adaptation of the program to the needs of the client population. Some of the data are not used in the quarterly analyses carried out by the project, but continue to be collected. And some of the data are obviously useless.⁴

Absence of a Baseline and Control Group

This socioeconomic monitoring seeks to determine whether there has been an increase in employment generation, level of production, and level of income to proprietors and workers as the result of these loans, as well as some indication of how these increases have been achieved. To determine this, however, it would be necessary to know what has happened to the rest of the SMI sector — those workshops that did not participate in the program. And even this type of comparison is still open to question, because, without a baseline study, it is impossible to know whether the ABA program has selected the best candidates, leaving the borrower and nonborrower populations not strictly comparable.

Making such a comparison is an exceedingly complex undertaking, made more so by the fact that half of the items elicited by the form refer to a point farther and farther in the past. It will become more complicated as the Social Fund for Development begins to make SMI loans to the same population.

Likelihood of Collecting Accurate Socioeconomic Data via Questionnaires

Questionnaires are by definition fraught with methodological constraints, and the ABA questionnaire is only one of myriad cases in point. Several reasons exist for doubting the accuracy of responses to the questions used here.

Respondents may not care to provide the information sought. In some societies this often results in refusal to answer specific questions, or the entire questionnaire. In Egypt, refusal to answer a direct question is considered rude, but there is no stricture against inaccurate response. The questions of most interest to the monitoring effort here are the very questions that small-scale industrial proprietors are most leery of answering accurately, due partly to ongoing problems in application of the tax and labor laws.

Another critical methodological problem manifested here is in the surveyors themselves. Sixty persons administer social forms, all with very little training in questionnaire administration. There is no

⁴ A case in point is the section dealing with training needs, which results in tables showing a high level of interest in various types of training. Training in a specific area does not automatically ensue from a high level of expressed interest, and when such training is offered, interest is low among clients. When clients are asked informally whether they would like training, they express much less interest than on the questionnaire. Administering a question such as this over and over again can be expected to stamp the whole enterprise as meaningless.

field follow-up to insure that the forms are being properly administered and no certainty that questions are being interpreted in the same way.⁵

Further, structured questionnaires keep decisions as to what are the questions of merit in the hands of the questionnaire writer, and even that only until the questionnaire is finalized; any observation made after that cannot be included, no matter how significant. This is not the best approach to people who consider themselves to be experts in the field in question, who typically give much less accurate and much less interesting information on structured survey forms than when they are engaged in an interview process.

Repeated Use of Structured Survey Form with the Same Clients

The routine administration of the same short questionnaire over and over to the same client inevitably produces learning of the "correct" responses, not only on the part of the client but also on the part of the interviewer. The process rapidly becomes boring to both client and extension worker. Because the form has no particular implications for either party, there is a real incentive for the extension worker to save time by filling it out in the office, as some extension workers report they do.

Environmental Effects

Any questionnaire that focuses entirely on the relationship between a given intervention and a given client ignores a vast range of extremely important data. Some of the relevant but neglected information concerns the environment of the intervention. This environment is far from constant, as has been the case with ABA.

The ABA program is itself an environmental effect: credit became available to SMIs where little had been available before. The socioeconomic monitoring attempts to measure the impact of this environmental change on the client. There have been, however, other highly significant changes in the environment during the same period that are not taken account of in this questionnaire. These include:

- The closing down of the export market to Libya, because of the blockade and the sharp decline in the value of the Dinar. This factor was of special significance in Alexandria, which contributed a disproportionate share of Egyptian SMI exports to Libya.
- The return of many skilled industrial workers from the Arab Gulf, some of whom used their savings to open SMIs in Alexandria.⁶
- A sharp reduction in purchasing power of the Egyptian consumer.

⁵ And some of the questions are ambiguous. For instance, the question about the number of dependents does not indicate whether the client and his wife are included in the total, and some extension workers understand this question to mean only the dependent children of the client, while others count all persons supported, whether they live in the same household or not (such as parents of the client).

⁶ For instance, many Egyptian shoemakers were in Iraq until the Gulf War. When they returned to Egypt at the time of the invasion of Kuwait, they opened their shops here, greatly increasing competition in this sector.

- Liberalization of regulations governing large-scale development, with consequent heightened competition in some SMI sectors.
- National policy of moving workshops out of the provincial capitals into industrial parks, resulting in increased difficulty in obtaining establishment and operation licenses and in permissions to expand or alter premises.
- Sharp reduction in availability of informal sector credit, including supplier credit.

The major upheavals in the Egyptian economy since the Project Paper was approved are continuing. One of the planned reforms under the International Monetary Fund (IMF) agreement, for instance, is freeing up imports of consumer goods, which is likely to result in strong competition in the Egyptian markets from Asian firms.

The questionnaire focuses on growth in a period of deepening economic recession. Yet there are no means of recording the stress experienced by small-scale producers because of sharply contracting demand in the marketplace and all the associated pressures that accompany this contraction. Nor is there any means of noting the often very creative responses the loan money has enabled proprietors to make to this situation (see case studies in Annex F).

A Static Format in an Evolving Program

Not only have there been changes in the environment of SMI operation since the project was designed, but much development has occurred within the program itself. Maximum loan size has been increased, the definition of permissible loan use has changed, experiments have been undertaken with loans to women borrowers despite the fact that this often requires loaning to start-up businesses and household businesses rather than to established workshops, and, most recently, merchants have been accepted as borrowers.

Because the socioeconomic monitoring process has remained fixed while the program has grown and developed, the questionnaire inevitably forces information into inappropriate molds. The questionnaire continues to assume that the borrower owns an established business, that he is a small-scale industrialist as opposed to being engaged in commerce or services, and that his successful utilization of credit means growth in employment, production, and income.

Thus the questionnaire does not allow program managers to benefit from studies of the special needs of special groups before undertaking policy shifts (though they do, of course, benefit from the aggregate experience of credit extension), nor to gain feedback from clients as to the suitability of the credit extension format to their needs. And it allows for no recording of project successes that are not in terms of growth per se.

The decision to loan to merchants as well as producers beginning in September 1993 is a case in point. This decision was reached because program management believes that provision of credit to merchants will have a positive effect on production workshops through stimulating demand. There is nothing in the socioeconomic impact monitoring system to support this assumption, although it may be correct, nor is there any means of confirming this linkage effect if it does occur. It is difficult to see how the current form could be administered to commercial borrowers, because it focuses exclusively on production businesses, but no plans were reported to adapt the form. However, 46 percent of the new loans issued in September went to merchants.

DESIGN OF THE PRESENT RESEARCH

The main task of the consultants' terms of reference was to carry out a survey of a stratified sample of loan clients. The purposes of this survey were to:

- Assess the accuracy of the data obtained by the socioeconomic survey process;
- Provide specific data on the key indicators of the socioeconomic questionnaire; and
- Determine whether the socioeconomic indicators are meaningful measures of project impact and, if not, suggest which indicators should be modified, eliminated, or added.

For the reasons discussed above, the team doubted whether the assessment needs of USAID and ABA could be met through adaptation of the existing socioeconomic form, which is a universal, inflexible, repeated survey. There was also considerable doubt that a new survey would be demonstrably superior to the existing one covering the same items with the same population.

Ideally, a substantial period of qualitative research should have preceded the structured survey the team administered, but this was not possible because of time constraints. The sample frame for this survey consisted of all the borrowers for whom socioeconomic data were available (borrowers who had taken at least two loans, at least one of which was taken subsequent to institution of the socioeconomic questionnaire), less those who were not engaged in production but rather in trade. This universe totalled 3,315 clients.

A prevalence study formula was used for establishing sample size (see Annex D for details). This resulted in a sample of 166. The anticipated rate of nonresponse was arbitrarily fixed at 30 percent, raising the total sample size to 219, which is 6.61 percent of the total cases. The sample was stratified by two factors expected to have significant influence on results: number of loans and sector of the workshop. A cross-tabulation of these two variables resulted in a two-way table, and a simple random sample was then selected from within each of these cells based on the percentage each cell represented of the total sample universe. After rounding, the total number of cases was 241.

In the event, data were collected on only 152 cases. There were no refusals to participate, but there were many clients who could not be interviewed, for reasons shown in Table 1. This is a substantial loss and may imply a bias in results. Fully 73 percent of the lost cases are clients who have either not persevered with the program or who were expelled from the program. Thus if there is any bias introduced by this loss rate, it would be in overestimating the impact of the project (ABA retains all clients, regardless of status, in the MIS system).

TABLE 1
REASONS FOR LOST CASES

Reason	N	%
Current address unknown*	33	37
Most recent loan application rejected	18	20
Closed	12	14
Not a workshop	9	10
Client died	6	7
Client out of town	3	3
Original data not on owner	3	3
Lawsuit under way	2	2
Failed to pick up last check	2	2
Too ill to interview	1	1
Total	89	99

- * The clients whose current address is unknown are ones who have not taken a loan for some time, and whose former extension officers have left the program. Their names have been assigned to new extension officers, who have no contact with them unless they return to apply for new loans.

The tables below compare the ABA data and the current data based on the same 152 cases, using the most recent data in the ABA MIS system and that collected in this survey.⁷ We present in the table a comparison of some indicators on which stability of response over time might be expected for the ABA sample universe (N=3315) versus the GEMINI sample (N=152).⁸ This indicates the stability of responses for a given client group, but does not answer the question of representativeness.

TABLE 2
GENDER FOR ABA UNIVERSE AND GEMINI SAMPLE

Gender		GEMINI	ABA
Male	N	136	2899
	%	89.5	87.5
Female	N	16	416
	%	10.5	12.5
Total	N	152	3315
	%	100	100

⁷ Some tables show fewer than 152 cases, because of missing data.

⁸ Age was an obvious variable to use in this comparison. However, there was missing data on ages in the ABA files, and a number of ages were obviously incorrect (such as age 14), which led us to discard this comparison.

TABLE 3
MARITAL STATUS FOR ABA UNIVERSE AND GEMINI SAMPLE

Gender		GEMINI	ABA
Single	N	26	659
	%	17.1	19.9
Married	N	126	2656
	%	82.9	80.1
Total	N	152	3315
	%	100	100

TABLE 4
LICENSE STATUS FOR ABA UNIVERSE AND GEMINI SAMPLE

Gender		GEMINI	ABA
License	N	90	1931
	%	59.2	58.3
No License	N	62	1380
	%	40.8	41.7
Total	N	152	3314
	%	100	100

TABLE 5
MEAN NUMBER OF LOANS BY SECTOR, ABA UNIVERSE, GEMINI SAMPLE

Sector	ABA	GEMINI
Garments	3.03	3.11
Leather	3.20	3.27
Wood	3.19	3.42
Metals	3.24	3.59
Other	3.15	3.15
Total	3.12	3.26

Questionnaire Design

A questionnaire was designed that sought the same information as the socioeconomic form in use at ABA, but in a somewhat different format. Some additional questions were also included to tap further data on key points. This questionnaire was field tested in Alexandria, where it rapidly became apparent that some questions were impossible to get accurate answers to because the respondents did not know the correct answers, and others because the respondents often did not care to give correct answers. These questions were eliminated from the questionnaire. These questions are discussed in the text and in Annex B, and the final form of the questionnaire is included as Annex C.

Survey Implementation

The sample was scattered across the city of Alexandria, with cases as far away as the new city of Amriyya. Except for a handful of cases located on main streets in downtown Alexandria, most of these workshops were difficult to locate, and contacts were therefore made with the help of extension workers, who accompanied the surveyors to the addresses and in some cases introduced them to the clients, but were not present during the actual interviews.

At the close of the field day, questionnaires were cleaned and then entered into an SPSS database. At the conclusion of the research, the relevant tables were generated by SPSS.

SECTION TWO

FINDINGS

DESCRIPTIVE DATA

General Workshop Characteristics

The greater number of these workshops are in the micro category rather than the small, in all sectors, as shown in Table 6.

TABLE 6
MICRO VERSUS SMALL BY SECTOR, GEMINI DATA

Size	Category	Garments	Leather	Wood	Metals	Other	Total
Micro	N	49	12	24	19	18	122
	%	80.3	85.7	96.0	90.5	69.2	83.0
Small	N	12	2	1	2	8	25
	%	19.7	14.3	4.0	9.5	30.8	17.0
Total	N	61	14	25	21	26	147
	%	100.0	100.0	100.0	100.0	100.0	100.0

Most of the workshops in this survey were founded by their current owners (95 percent) an average of 12 years ago, during the boom years of small-scale industrial development in the early 1980s. (See Tables 7 and 8.)

TABLE 7
YEARS SINCE ESTABLISHMENT, GEMINI DATA

Sector	N	Mean Years
Garments	61	10.3
Leather	15	10.8
Wood	26	14.0
Metals	22	15.0
Other	26	11.5
Total	150	11.9

TABLE 8
WORKSHOP ACQUISITION BY SECTOR, GEMINI DATA

Sector		Established	Inherited	Purchased	Other	Total
Garments	N	61	1	0	0	62
	%	98.4	1.6	0.0	0.0	
Leather	N	15	0	0	0	15
	%	100.0	0.0	0.0	0.0	
Wood	N	23	1	1	1	26
	%	88.5	3.8	3.8	3.8	
Metals	N	21	1	0	0	22
	%	95.5	4.5	0.0	0.0	
Other	N	23	2	0	1	26
	%	88.5	7.7	0.0	3.8	
Total	N	143	5	1	2	151
	%	94.7	3.3	.7	1.3	100.0

Many of the proprietors who opened shops at that time reported that they had worked in Libya or the Arab Gulf and used that money to establish their own shops.

As shown in Table 9, more than half remain in their original premises. Eighty percent of all premises are rented.

TABLE 9
FIRST PREMISES BY SECTOR, GEMINI DATA

Sector	Number in First Premises	%
Garments	33	53.2
Leather	9	60.0
Wood	16	61.5
Metals	15	68.2
Other	15	57.7
Total	88	58.3

Ownership is generally individual (80 percent samplewide), although there are other ownership structures, generally with partners from within the family of the client or persons with whom the proprietor worked in the Arab states. (See Table 10.)

TABLE 10
OWNERSHIP STRUCTURE BY SECTOR, GEMINI DATA

Sector	Individual		Partnership		Joint		Other	
	N	%	N	%	N	%	N	%
Garments	50	80.6	2	3.2	5	8.1	5	8.1
Leather	12	80.0	1	6.7	2	13.3	0	0
Wood	23	88.5	1	3.8	2	7.7	0	0
Metals	15	68.2	1	4.5	5	22.7	1	4.5
Other	22	84.6	2	7.7	2	7.7	0	0
Total	122	80.8	7	4.6	16	10.6	6	4.0

About 60 percent of the workshops are licensed. More than 60 percent have tax cards and are registered with the social insurance system. There are very few workshops with industrial registrations, and commercial registrations are less than licenses, as shown in Table 11.

TABLE 11
OFFICIAL REGISTRATIONS BY SECTOR, GEMINI DATA

Sector		License	Commercial	Industrial	Tax	Insurance
Garments	N	31	19	4	33	30
	%	49.2	30.2	6.3	52.4	47.6
Leather	N	10	6	2	9	10
	%	66.7	40.0	13.3	60.0	66.7
Wood	N	16	11	2	15	20
	%	61.5	42.3	7.7	57.7	76.9
Metal	N	13	19	0	17	16
	%	59.1	45.5	0.0	77.3	72.7
Other	N	20	18	3	22	22
	%	76.9	69.2	11.5	84.6	84.6
Total	N	90	64	11	96	98
	%	59.2	42.1	7.2	63.2	64.5

General Characteristics of Clients

About 89 percent of the sample are male, and 61 percent are between the ages of 29 and 44. These proprietors average 7 years of formal education. More than 80 percent are married. Counting themselves, these clients average more than 5 dependents each.

Nearly three quarters of the proprietors had worked in the same subsector prior to acquiring their workshops, most of them serving formal apprenticeships, as shown in Table 12. On average, they had worked in their trades a total of 24 years each, although the largest number of clients is between the ages of 30 and 45.

TABLE 12
STATUS AT ENTRY TO TRADE, GEMINI DATA

Status		Garments	Leather	Wood	Metals	Other	Total
Owner	N	17	1	4	5	7	34
	%	27.0	6.7	15.4	22.7	26.9	22.4
Skilled Worker	N	7	1	3	2	1	14
	%	11.1	6.7	11.5	9.1	3.8	9.2
Apprentice	N	38	12	18	15	14	97
	%	60.3	80.0	69.2	68.2	53.8	63.8
Other	N	1	1	1	0	4	7
	%	1.6	6.7	3.8	0	15.4	4.6
Total	N	63	15	26	26	22	152
	%	41.4	9.9	17.1	14.5	17.1	100

TABLE 13
CONTINUING FATHER'S OCCUPATION, GEMINI DATA

Father's Occupation		Garments	Leather	Wood	Metals	Other	Total
Same Industry	N	6	4	9	3	5	27
	%	9.5	26.7	34.6	13.6	19.2	17.8
Other Industry	N	17	4	6	2	4	33
	%	27.0	26.7	23.1	9.1	15.4	2.7
Different Trade	N	40	7	11	17	17	92
	%	63.5	46.7	42.3	77.3	65.4	60.5
Total	N	63	15	26	22	26	152

Less than 20 percent of proprietors had inherited their occupations from their fathers, although nearly 40 percent of the fathers of these clients were employed in industry. Nearly a quarter of their grandfathers were also employed in industry. (See Table 13 above and Table 14.) There is a difference among sectors in this regard, with the leather and wood sectors showing higher rates of fathers in the same trade than other sectors, but this difference does not appear to be statistically significant.

TABLE 14
CONTINUING GRANDFATHER'S OCCUPATION, GEMINI DATA

Occupation		Garments	Leather	Wood	Metals	Other	Total
Same Industry	N	3	3	4	0	2	12
	%	4.9	20.0	15.4	0.0	7.7	8.0
Different Industry	N	13	2	2	3	5	25
	%	21.3	13.3	7.7	13.6	19.2	16.7
Not in Industry	N	45	10	20	19	19	113
	%	73.8	66.7	76.9	86.4	73.1	75.3
Total	N	61	15	26	22	26	150
	%	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 15
SOURCE OF SKILLS, GEMINI DATA

Sector		Workshop of Relative	Workshop of Non-Relative	Technical School	Other	Total
Garments	N	14	29	1	19	63
	%	22.2	46.0	1.6	30.2	
Leather	N	8	6	1	0	15
	%	53.3	40.0	6.7	0.0	
Wood	N	12	9	1	4	26
	%	46.2	34.6	3.8	15.4	
Metals	N	3	13	2	4	22
	%	13.6	59.1	9.1	18.2	
Other	N	10	9	1	6	26
	%	38.5	34.6	3.8	23.1	
Total	N	47	66	6	33	152
	%	30.9	43.4	3.9	21.7	99.9

Only 4 percent had acquired their industrial skills in technical schools, as shown in Table 15 above. (Nine percent had attended technical schools, but more than half of these worked in other trades than those which they studied.)

Gender

The sample universe is composed of 88 percent males and 12 percent females; the GEMINI data have 89 percent males and 11 percent females. There has been considerable concern expressed by USAID about the small number of female clients, and efforts have been made to increase the recruitment of women to the program. On the basis of this experience, many staff members at ABA report that there are few women in the SMI sector and that they are indifferent clients, so that this emphasis is not in the interest of the program. This assumption has not been backed up by a formal analysis of the differential performance of male and female clients in the program.

GEMINI data show that although some differences exist between male and female borrowers in key personal attributes, as shown in Table 16, these are of no statistical significance. However, women

TABLE 16
COMPARISON OF MALE AND FEMALE BORROWERS ON PERSONAL ATTRIBUTES, GEMINI DATA

Attributes	Males	Females
Mean Age	42.0	38.8
Means Years Education	7.1	7.5
Mean Dependents	5.2	5.3

TABLE 17
COMPARISON OF MALE AND FEMALE BORROWERS
ON BUSINESS ATTRIBUTES, GEMINI DATA

Indicator	Males	Females	Probability
Mean Years in Trade	24.97	17.12	.029
Mean Employees Before	3.04	1.47	.051
Mean Employees After	3.02	1.29	.002
Mean Number of Loans	3.33	2.71	.007
Mean Total Loan Value	9322	4029	.000

clients have fewer years in their trade, established their own businesses more recently, employ fewer workers, and have taken fewer loans, as shown in Table 17 above.⁹

There is a highly significant difference in the distribution of male and female proprietors across productive sectors. Most women borrowers are in garment productions, and there are no women in the samples for leather or metals, as shown in Table 18.

TABLE 18
GENDER BY SUBSECTOR, GEMINI DATA

Sector		Male	Female	Total
Garments	N	49	14	63
	%	77.8	22.2	100.0
Leather	N	15	0	15
	%	100.0	0.0	100.0
Wood	N	25	1	26
	%	96.2	3.8	100.0
Metals	N	22	0	22
	%	100.0	0	100.0
Other	N	25	1	26
	%	96.2	3.8	100.0
Total	N	136	16	152
	%	89.5	10.5	100.0

The number of females may be slightly higher than shown here, as several cases were encountered where a man had taken a loan on behalf of his wife, who actually ran the business. These were mostly in the garment trade and thus do not affect the findings concerning a high concentration of women in this sector (significant at well below the .01 level).

Women respondents were more likely to be working within their household living space, as reflected by the much higher preponderance of this location among the garment workers — 29 percent versus less than 6 percent of all other categories combined (see Table 19).

⁹ However, the total number of female borrowers in the sample is small, and further analysis on larger samples might show different results. Wiedemann and Merabet (1992), in a study of female entrepreneurs in industry, commerce, and services, found that female entrepreneurs had larger household sizes, lower educational levels, and a higher widowhood rate than males. However, Wiedemann and Merabet's sample also included a large number of provincial businesses, and more than three quarters of their sample consisted of service and trade establishments.

TABLE 19
LOCATION OF WORKSHOP, GEMINI DATA

Location		Garments	Other	Total
Within household living space	N	18	5	23
	%	29.0	5.6	
Separate premises	N	44	84	128
	%	71.0	94.4	
Total	N	62	89	151
	%	100.0	100.0	100.0

There are two reasons for the relatively high proportion of garment workshops being located within household living space. One, of course, is that the equipment requirements for small production shops are compatible with such location. Another, however, is that a substantial number of the women-operated shops, though not of the male-operated shops, were funded as start-ups. This is counter to the policy of the program, and therefore shows up on neither the consultants' survey form nor the MIS form, but was essential if the program is to respond to the call for more loans to women.

Employment

As shown above, the majority of these shops have five employees or less. As shown in Table 20, there are sectoral differences in employment level, but these differences are not statistically significant.

TABLE 20
MEAN EMPLOYMENT BY SECTOR, GEMINI DATA

Sector	N	Mean
Garments	63	3.08
Leather	14	2.14
Wood	26	2.11
Metals	22	2.82
Other	26	3.46
Total	151	2.85

Workshop Finance

Sample workshops were founded chiefly by savings, as shown in Table 21, but 25 percent also drew on family funds. Most of these savings were earned in work elsewhere in the Arab world, either in Libya or in the Arab Gulf.

TABLE 21
LARGEST SINGLE SOURCE OF ESTABLISHMENT CAPITAL, GEMINI DATA

Sector		Own Savings	Family Money	Property Sale	Not Founder	Other	Total
Garments	N	27	24	4	1	7	63
	%	42.9	38.1	6.3	1.6	11.1	100.0
Leather	N	10	3	1	0	1	15
	%	66.7	20.0	6.7	0.0	6.7	100.1
Wood	N	13	7	3	3	0	26
	%	50.0	26.9	11.5	11.5	0.0	99.9
Metals	N	9	8	0	1	4	22
	%	40.9	36.4	0.0	4.5	18.2	100.0
Other	N	12	8	1	3	2	26
	%	46.2	30.8	3.8	11.5	7.7	100.0
Total	N	71	50	9	8	14	152
	%	46.7	32.9	5.9	5.3	9.2	100.0

Overall, more than half of the production in these workshops is on the basis of prior orders, and there is very little difference in extent of prior-order production by sector, as shown in Table 22. Some of these shops are not engaged in manufacturing per se, but rather services, as in the case of a tailor who takes orders for suits from individuals, with the individuals providing the cloth and sometimes the notions. Others manufacture on order from merchants or other workshops.

The prior order level is high, particularly in light of the figures shown in Table 23, which show that about 85 percent of workshops are doing some portion of their production on the basis of prior orders. Table 23 also shows the percentage of those doing work on prior orders who are paid an advance on this work, and the percentage of total price to purchaser paid as an advance.

TABLE 22
MEAN PERCENTAGE OF PRODUCTION ON PRIOR ORDER BY SECTOR, GEMINI DATA

Sector	N	Mean Percentage
Garments	63	64.5
Leather	15	71.3
Wood	26	67.7
Metals	21	72.3
Other	26	64.0
Total	151	66.7

TABLE 23
PRIOR ORDERS AND ADVANCE PAYMENTS BY SECTOR, GEMINI DATA*

Shop Status		Garments	Leather	Wood	Metals	Other	Total
Shops Working on Prior Orders	N	49	12	23	16	19	119
	%	82.9	89.1	76.5	94.9	87.6	84.7
Receiving Advance Payment	N	27	3	20	11	12	73
	%	55.1	25.0	87.0	68.8	63.2	61.3
Mean % Advance		29.0	30.0	40	35.4	31.2	33.4

* Those receiving an advance on prior orders are shown as a percentage of those with prior orders, not the sample as a whole.

As shown in Table 24, raw material costs account for the greatest part of total cost, and, in every sector, the advance payments are substantially below the costs of raw materials, requiring considerable liquidity from the proprietor even to accept orders for products. (Note that Table 24 is based on the clients who receive any advances, rather than on the entire sample.)

Thus proprietors need considerable liquidity to manage on-order production. The need for liquidity does not end with delivery of products, as payment for the outstanding amount is frequently delayed, as shown in Table 25.

TABLE 24
MEAN PERCENTAGE ADVANCE AND MEAN PERCENTAGE OF RAW MATERIALS COST
TO TOTAL COST BY SECTOR, GEMINI DATA

Sector	Mean % Advance	Raw Materials As Mean % of Total Cost
Garments	29	56
Leather	30	71
Wood	40	57
Metals	36	63
Other	31	63
Total	33	60

TABLE 25
PAYMENT IN FULL FOR ON-ORDER PRODUCTION, GEMINI DATA

Sector		In Full	Not in Full
Garments	N	23	26
	%	46.9	53.1
Leather	N	2	10
	%	16.7	83.3
Wood	N	14	9
	%	60.9	39.1
Metals	N	12	4
	%	75.0	25.0
Other	N	12	7
	%	63.2	36.8
Total	N	63	56
	%	52.9	47.1

Delayed payment is a problem for all producers, whether on order or not, but is slightly less for those who have produced on order. This can be seen in Table 26, which shows proportion of total producers, whether producing on order or not, who receive full payment upon delivery of goods.

Table 26 does not capture the problems of liquidity faced by the proprietors in the small-scale industrial sector. Ten years ago, proprietors in every sector report, liquidity was not problematic for

well-established shops.¹⁰ Supplier credit was freely available, investors willing to help stake a given order were readily obtained, and purchasers paid at the end of the week. Today the situation is very different. Supplier credit has dried up to some extent and is more expensive than in the past. Other means of ensuring liquidity, such as partnerships and *gamayas*, are much harder to come by. Moneylenders are appearing in the workshop areas for the first time, taking usurious levels of interest for short-term loans. At the same time, merchants who used to pay at the end of the week of delivery are now stretching out the payment period to unpredictable lengths.

The producer thus does not recover his money when he completes a job, nor can he predict when he will recover his money. Taking on a new order, or preparing a new batch for the market, requires liquidity, but the producer's money is likely to be "in the market" and thus not available for spending on raw materials. The result is a general slowdown, or stoppage, of work. Although nearly all the proprietors interviewed in this study described the increased squeezing they are experiencing, there are few reports of merchants defaulting completely.

TABLE 26
PAYMENT IN FULL ON DELIVERY, ALL CLIENTS, GEMINI DATA

Sector		In Full	Not in Full
Garments	N	27	36
	%	42.9	57.1
Leather	N	2	13
	%	13.3	86.7
Wood	N	15	11
	%	57.7	42.3
Metals	N	14	7
	%	66.7	33.3
Other	N	14	12
	%	33.3	46.2
Total	N	72	79
	%	47.7	52.3

As in the ABA questionnaire, the GEMINI questionnaire asked about the market channels used by clients. The main channels used for the main product are shown in Table 27.

¹⁰ See Oldham and Tama'a, "The Maintenance of Liquidity in the Small-Scale Industrial Sector," mimeographed report, 1988.

TABLE 27
TYPE OF CUSTOMERS FOR MAIN PRODUCT, GEMINI DATA

Customers		Garments	Leather	Wood	Metals	Other	Total
Individuals	N	19	1	15	8	7	50
	%	30.2	6.7	57.7	38.1	26.9	33.1
Retail Shops	N	22	10	2	3	9	46
	%	34.9	66.7	7.7	14.3	34.6	30.5
Workshops	N	4	1	2	4	1	12
	%	6.3	6.7	7.7	19.0	3.8	7.9
Wholesalers	N	12	3	4	4	4	27
	%	19.0	20.0	15.4	19.0	15.4	17.9
Other	N	6	0	3	2	5	16
	%	9.5	0	11.5	9.5	19.2	10.6
Total	N	63	15	26	21	26	151

Qualitative data show that many producers have attempted to cope with problems in the market by developing new means of selling their goods. For instance, producers who formerly had their raw materials provided by clients, notably tailors, are now stocking fabric and even complementary ready-to-wear goods that have been purchased or produced presale. Some carpenters who once produced only on order have begun to invest in production of small items that can be bought by the consumer or merchant directly; others have turned entirely to production of less-expensive models to be sold postproduction. A lampmaker has opened a small retail shop attached to his workshop. A hairdresser has begun to produce a small line of hair ornaments for weddings.

Other producers have observed these strategies and are trying to work out diversification schemes for themselves. These are all reported as strategies for dealing with the current economic situation, but such trends are impossible to define on the basis of a fixed or predetermined questionnaire.

The questionnaire attempted to collect data on a range of cost factors for the final product. This proved to be impossible, partly because the portion of costs normally allocated to overhead is difficult to calculate under widely varying production levels from week to week and month to month within a single shop. Tables 28 and 29 show the percentages of total production cost for the main product that is allocated to labor and raw materials.

TABLE 28
LABOR COSTS AS A PORTION OF TOTAL COSTS, GEMINI DATA

Sector	N	Mean Percent
Garments	60	35
Leather	14	27
Wood	23	31
Metals	20	24
Other	24	32
Total	141	31

TABLE 29
RAW MATERIALS COSTS AS A PORTION OF TOTAL COSTS, GEMINI DATA

Sector	N	Mean Percent
Garments	57	56
Leather	13	71
Wood	23	57
Metals	20	63
Other	23	63
Total	136	60

Most respondents could report the manner in which they priced their products on the basis of labor and raw materials, and the percentage they added on top to cover their own inputs and overheads. Under current circumstances, even these calculations are equivocal, as many proprietors do the work of skilled workers and are willing to bargain away part or all of their profit in order to continue producing, or, as they put it, "stay in the market."

Sixty-eight respondents said that raw materials were available to them on credit, whether they actually made such purchases or not. They reported a wide range of payment periods and markups, as shown in Tables 30 and 31. One reason that the range is so wide in these tables is that suppliers are also feeling the liquidity squeeze, and are rationing credit. Older customers with longer relationships with the suppliers receive better terms than new customers, who may not be allowed to buy on credit at all. This has created a niche for small suppliers who tour workshop neighborhoods with loads of raw materials for sale at enormous markups.

TABLE 30
PERCENTAGE OF MARKUP ON RAW MATERIALS PURCHASES ON CREDIT, GEMINI DATA

Sector	N	Mean Percent
Garments	29	19
Leather	11	17
Wood	6	12
Metals	9	15
Other	13	21
Total	68	18

TABLE 31
DAYS ALLOWED FOR COMPLETE PAYMENT ON CREDIT
PURCHASE OF RAW MATERIALS, GEMINI DATA

Sector	N	Mean Days
Garments	30	108
Leather	13	113
Wood	14	55
Metals	13	37
Other	15	44
Total	85	78

PROGRAM IMPACT

This section reviews and compares data collected by ABA and by the consultants on indices designed to reflect program impact.

Employment Generation

The ABA questionnaire looks at the numbers of permanent and temporary workers, male and female, before the project and at the time of the most recent loan application. We were unable to elicit reliable data concerning temporary employees prior to taking the first loan, and thus dropped the questions on this category altogether.

As shown in Table 32, there was a substantial difference in the numbers of employees reported by the same client group for before-project status and current status. This is a highly significant difference (probability < .0001). It is important to note that the most serious problem here is not the

difference in absolute numbers between the two samples, but the difference in trend: the ABA sample indicates a substantial increase in employment, while the current sample shows a decrease.

TABLE 32
EMPLOYMENT PREPROJECT AND NOW
ABA SAMPLE AND GEMINI SAMPLE DATA

Sample	N	Mean Number Preproject	Mean Number at Present
ABA	152	1.17	1.70
GEMINI	152	3.00	2.85

In light of the economic conditions in the Alexandria SMI sector, the current study's findings, at least in terms of the downward trend, are the more plausible here. Many proprietors related stories of reduction of working hours, and therefore of wages, trying to retain their existing work force under conditions of low demand in the market. These workers were still considered full-time, as they didn't work elsewhere and were permanently employed, but were not working full-time. Other proprietors were simply hiring from the market when they had enough working capital to produce. Skilled workers were repeatedly observed in the field going from shop to shop to see if they could get a day's work.

Wages

Rates of compensation to workers are tied to production. A stable wage is paid to workers who are registered with the social insurance system, but most of their income is derived from piecework or hours worked. This makes it difficult, often impossible, to determine rates of pay to skilled workers in the past. So much difficulty was encountered in the field with the questions on rates of compensation in the past that these questions were dropped, and only present rates were sought.

Comparison of the two data sets for the 152 clients shows a great difference between the ABA set and the current set: ABA records LE 167 per week as the average compensation, and we record LE 110.

Production

Sixty-five proprietors reported that they had used the ABA loans to reduce the costs of their main products, as shown in Table 33.

TABLE 33
PORTION WITH COST REDUCTION IN MAIN PRODUCT, GEMINI DATA

Portion	Garments	Leather	Wood	Metals	Other	Total
Total N	63	15	26	22	26	152
N with Reductions	29	5	8	12	11	65
% with Reductions	46.0	33.3	30.8	54.5	42.3	42.8
Mean % Reduction	11.4	17.0	9.0	14.0	12.4	12.3

The number of clients reporting a decrease in unit cost in the ABA sample is quite different than that shown in the GEMINI data, as shown in Table 34.¹¹

TABLE 34
CLIENTS REPORTING COST REDUCTION AS RESULT OF LOANS
ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Reduction	No Reduction	
Reduction	N	49	16	65
	Row %	75.4	24.6	42.8
	Col %	42.2	44.4	
No Reduction	N	67	20	87
	Row %	77.0	23.0	57.0
	Col %	57.8	55.6	
ABA Total	N	116	36	152
	%	76.3	23.7	100.0

¹¹ Table 34 (and several subsequent tables) is arranged to show the full difference in responses by the same clients to the two questionnaires. A simple four-celled table comparing ABA and GEMINI totals for reduction and no reduction in costs as a result of the loan shows a difference in 51 of the total of 152 cases. However, the problem is not simply one of the ABA data set showing a greater portion of these clients experiencing cost reduction because of the loans, but of *overall instability of response to questions* on this item. That is, it is not only that some individuals reporting cost reductions to ABA have fallen into the no-reduction category on the new survey, but also that some who reported no reduction have moved into the reduction cell here. Sixteen of the clients shown by ABA to have no reduction are shown by GEMINI to have experienced reduction, and 67 of the clients shown by ABA to have a reduction are shown by GEMINI to have no reduction, for a total difference in response of 85 clients out of 152. Instability of response is thus manifested for 56 percent of total clients, rather than for 34 percent, as would have been indicated by the simpler presentation.

The greatest part of the reduction reported in the GEMINI study came through decreased costs for raw materials, either through cash purchase or, in a small number of cases, purchase in greater bulk.

TABLE 35
MOST IMPORTANT FACTOR IN COST REDUCTIONS, GEMINI DATA

Factor		Garments	Leather	Wood	Metals	Other	Total
None	N	33	7	17	9	13	79
	%	52.4	53.8	68.0	42.9	52.0	53.7
Wages	N	1	0	0	1	0	2
	%	1.6	0.0	0.0	0.0	0.0	1.4
Materials	N	24	5	6	10	10	55
	%	38.1	38.5	24.0	47.6	40.0	37.4
Subcontract	N	3	0	1	0	0	4
	%	4.8	0.0	4.0	0.0	0.0	2.7
Other	N	2	1	1	1	2	7
	%	3.2	7.7	4.0	4.8	8.0	4.8
Total	N	63	13	25	21	25	147
	%	42.9	8.8	17.0	14.3	17.0	100.0

According to the ABA data, the majority of clients experienced an improvement in product quality as the result of their loans. GEMINI data, however, show that the majority, an even greater majority, experienced no such improvement, as shown in Table 36. This question probably originated from the pervasive, but erroneous, idea that quality improvements will ipso facto increase sales.

Most Egyptian SMIs serve a mass domestic market that cares much more about price than quality. If low-cost, good quality imports from Asia enter the Egyptian market, or if the problem of export is resolved for the small shops by an improvement in the Libyan economy or a greatly improved wholesale marketing system, an incentive to improve quality may come into being. For the time being, however, this is of limited importance.

It is, of course, logical to find that workshop owners are not striving to improve quality under conditions where purchasers are much more concerned with price than with quality. Quality has certainly declined for many producers, as they cut corners to increase affordability of their products. This cannot be measured on the questionnaire as it stands.

TABLE 36
IMPROVEMENT IN PRODUCT QUALITY AS THE RESULT OF CREDIT
ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Improvement	No Improvement	
Improvement	N	15	1	16
	Row %	93.8	6.3	10.5
	Col %	13.2	2.6	
No Improvement	N	99	37	136
	Row %	72.8	27.2	89.5
	Col %	86.8	97.4	
ABA Total	N	114	38	152
	%	75.0	25.0	100.0

More than 100 respondents reported an increase in volume of sales due to the loans, as shown in Table 37.

TABLE 37
INCREASE IN VOLUME OF SALES, GEMINI DATA

Portion	Garments	Leather	Wood	Metals	Other	Total
Total N	63	15	26	22	26	152
N with Increase	50	6	15	17	19	107
% with Increase	79.4	40.0	57.7	77.3	73.1	70.4
Mean % Increase	32.4	29.2	25.9	52.9	39.1	35.8

The most frequently reported factor in increased volume of sales was a simple increase in production, as shown in Table 38. Qualitative data show that the increased production derived from increased liquidity, which allowed shops to achieve a return to their own former levels of production (or some part thereof), and not, except in a few cases, to an increase in capacity.

TABLE 38
FACTORS IN INCREASED VOLUME OF SALES, GEMINI DATA

Factor		Garments	Leather	Wood	Metals	Other	Total
More Market Channels	N	19	2	5	5	2	33
	%	30.2	13.3	19.2	22.7	7.7	21.7
New Market Type	N	6	0	0	0	3	9
	%	9.5	0.0	0.0	0.0	11.5	5.9
Increase in Production	N	40	3	12	13	13	81
	%	63.5	20.0	46.2	59.1	50.0	53.3
Reduction in Unit Price	N	7	2	6	5	3	23
	%	11.1	13.3	23.1	22.7	11.5	15.1
Improved Quality	N	10	0	2	4	0	16
	%	15.9	0.0	7.7	18.2	0.0	10.5
New Products	N	17	4	5	3	7	36
	%	27.0	26.7	19.2	13.6	26.9	23.7
Other	N	6	0	0	4	6	16
	%	9.5	0.0	0.0	18.2	23.1	10.6

Two-thirds of the respondents said that they had an increase in income as well, as shown in Table 39. Once again, this increase is based on comparison with the depressed state of their incomes because of the recession in Egypt, not prerecession conditions.

GEMINI data show increased income for 103 of 152 cases. This increase in value was measured in percentage terms in the GEMINI questionnaire, because it proved impossible to obtain reliable absolute numbers for either preloan or postloan income. The ABA data, which are expressed in absolute numbers, were therefore converted into percentage increase for comparison with the GEMINI data. The result of this calculation for the 103 cases was a mean increase in income, for those who had any increase, of 35.8 percent for the GEMINI sample and 87.3 percent for the ABA sample.

TABLE 39
INCREASE IN INCOME, GEMINI DATA

Sector		Increase	No Increase
Garments	N	46	17
	%	73.0	27.0
Leather	N	5	10
	%	33.3	66.7
Wood	N	15	11
	%	57.7	42.3
Metals	N	19	3
	%	86.4	13.6
Other	N	17	9
	%	65.4	32.9
Total	N	102	50
	%	67.1	34.9

One of the factors contributing to increased income in the ABA data is an increase in unit price, quite apart from natural price increase in the market. As shown in Table 40, this increase is not confirmed by the GEMINI data.

TABLE 40
INCREASE IN UNIT PRICE AS A RESULT OF CREDIT
ABA AND GEMINI SAMPLE DATA

GEMINI		ABA		GEMINI Total
		Increase	No Increase	
Increase	N	20	3	23
	Row %	87.0	13.0	15.1
	Col %	13.9	37.5	
No Increase	N	124	5	129
	Row %	96.1	3.9	84.9
	Col %	86.1	62.5	
ABA Total	N	144	8	152
	Col %	94.7	5.3	100.0

Qualitative findings from the field indicate that the GEMINI questionnaire captured the growth issue as poorly as the ABA questionnaire. For the most part, the clients of the program who experienced a growth in production and income did so not compared with their long-term production and income levels, but compared with their conditions immediately prior to the loans, when they were at all-time lows because of lack of liquidity.

So much more liquidity is now required for a producer to "stay in the market," and the sources of this liquidity are so constricted, that immediately preloan status represented a sharp drop over previous performance because of increasing and unpredictable payment periods from their clients.

The ABA questionnaire looks at market channels, asking whether clients sell to individual, retail, and wholesale customers. More than one response is allowed. The GEMINI questionnaire asks only which is the main channel for the main product. Although the focus is different, the results are consistent, as shown in Tables 41-43.

TABLE 41
MARKETING TO RETAILERS, ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Channel	Not Channel	
Main Channel	N	12	34	46
	Row %	26.1	73.9	30.3
	Col %	21.8	35.1	
Not Main Channel	N	43	63	106
	Row %	40.6	59.4	69.7
	Col %	78.2	64.9	
ABA Total	N	55	97	152
	Col %	36.2	63.8	100.0

TABLE 42
MARKETING TO INDIVIDUALS, ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Channel	Not Channel	
Main Channel	N	2	48	50
	Row %	4.0	96.0	32.9
	Col %	10.0	36.4	
Not Main Channel	N	18	84	102
	Row %	17.6	82.4	67.1
	Col %	90.0	63.6	
ABA Total	N	20	132	152
	Col %	13.2	86.8	100.0

TABLE 43
MARKETING TO WHOLESALE, ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Channel	Not Channel	
Main Channel	N	11	16	27
	Row %	40.7	59.3	17.8
	Col %	12.2	25.8	
Not Main Channel	N	79	46	125
	Row %	63.2	36.8	82.2
	Col %	87.8	74.2	
ABA Total	N	90	62	152
	Col %	59.2	40.8	100.0

The main use of increased income was for raw materials purchases (Table 44). Almost no investment was made in skilled labor, improvement of premises, or external investments. More than half of the respondents said their expenditures on their households had increased. However, in most cases they said that this was a very limited increase, as resources were being conserved for the workshop's development, with increased consumption deferred until current goals were met. Several also commented that it was risky to give more money to household expenses, as families can easily become accustomed to spending more, and under unstable economic conditions such as those of today, they can't be sure to sustain such an increase.

TABLE 44
USE OF INCREASED INCOME, GEMINI DATA

Expenditure		Garments	Leather	Wood	Metals	Other	Total
Materials	N	31	4	9	14	14	72
	%	67.4	80.0	60.0	73.7	82.3	70.6
Equipment	N	14	3	4	7	6	34
	%	30.4	60.0	26.7	36.8	35.3	33.3
Labor	N	3	0	1	1	1	6
	%	6.5	0.0	6.7	5.3	5.9	5.9
Premises	N	5	0	3	5	4	17
	%	10.9	0.0	20.0	26.3	23.5	16.7
External	N	3	1	0	2	0	6
	%	6.5	20.0	0.0	10.5	0.0	5.9
Household	N	34	3	8	11	5	61
	%	7.4	60.0	53.3	57.9	29.4	59.8
Total	N	46	5	15	19	17	102

Size Category

Two size categories are used for classifying ABA loans: micro, meaning workshops employing up to 5 workers, and small, meaning workshops employing 6-15 workers. One component of the quarterly socioeconomic reports issued by ABA is a comparison of the proportion of workshops which were in each category prior to participation in the program with current proportions. This measure is much rougher than that which looks at numbers of employees per se, and can easily mask the changes in employment levels that have occurred during the clients' participation in the program. For what it is worth, however, the comparison is shown in Tables 45 and 46.

TABLE 45
SIZE STATUS BEFORE PARTICIPATION FOR ABA AND GEMINI DATA

Data Source		Micro	Small	Total
ABA	Number	142	5	147
	Percentage	96.6	3.4	100.0
GEMINI	Number	128	19	147
	Percentage	87.1	12.9	100.0

TABLE 46
SIZE STATUS AFTER PARTICIPATION FOR ABA AND GEMINI DATA

Data Source		Micro	Small	Total
ABA	Number	143	8	151
	Percentage	94.7	5.3	100.0
GEMINI	Number	131	20	151
	Percentage	86.8	13.2	100.0

Use of Supplier Credit

The current survey shows a decrease in use of supplier credit for all subsectors, as shown in Table 47. These figures reflect a significant difference among the five sectors (significant at .05 level) in the extent of credit purchase prior to the loan program, with leather goods having by far the highest rate. Some of this difference disappears in the reports of current status, but a significant difference remains among leather, garments, and wood (again .05 level).

TABLE 47
MEAN PERCENTAGE OF RAW MATERIALS PURCHASED ON CREDIT BEFORE
LOANS AND AT PRESENT, GEMINI DATA

Sector	Number	Before Loans	Currently
Garments	63	18.4	7.5
Leather	15	58.0	5.3
Wood	26	23.6	18.1
Metals	22	33.9	17.0
Other	26	18.0	18.7
Total	152	25.4	18.7

Examining raw materials purchases before and after the loan program in the total number of clients purchasing any portion of their raw materials on credit, both ABA and GEMINI figures show a sharp decrease in credit buying, as shown in Tables 48 and 49.

TABLE 48
CLIENTS PURCHASING SOME OF THEIR RAW MATERIALS ON CREDIT
BEFORE LOANS PROGRAM, ABA AND GEMINI DATA

GEMINI		ABA		GEMINI Total
		Some	None	
Some	N	43	16	59
	Row %	72.9	27.1	39.1
	Col %	39.8	37.2	
None	N	65	27	92
	Row %	70.7	29.3	60.9
	Col %	60.2	62.3	
ABA Total	N	108	43	151
	Row %	71.5	28.5	100.0

TABLE 49
CLIENTS PURCHASING SOME OF THEIR RAW MATERIALS ON CREDIT
AFTER LOANS PROGRAM, ABA AND GEMINI SAMPLE DATA

GEMINI		ABA		GEMINI Total
		Some	None	
Some	N	21	27	48
	Row %	43.8	56.3	31.6
	Col %	46.7	25.2	
None	N	24	80	104
	Row %	23.1	76.9	68.4
	Col %	53.3	74.8	
ABA Total	N	45	107	152
	Row %	29.6	70.4	100.0

Bank Accounts

In the current survey, respondents were asked if they had checking accounts, savings accounts, both types of accounts, or neither type, prior to the program and at the time of the interview. Twenty-eight percent had at least one account prior to the program, and this figure was unchanged at the time of interview, as shown in Table 50.

TABLE 50
BANK ACCOUNTS BEFORE AND AFTER PROGRAM, GEMINI DATA

Account		Before	After
Checking	N	8	5
	%	5.3	3.3
Savings	N	33	36
	%	21.7	23.7
Both	N	2	2
	%	1.3	1.3
Neither	N	109	109
	%	71.7	71.7
Total	N	152	152
	%	100.0	100.0

These figures are in close but imperfect accord with those registered for the same clients in the ABA data. Data on clients for preproject bank account status in the two data sets are shown in Table 51. The GEMINI data show a higher rate of preproject bank accounts than the ABA data (28 percent versus 10 percent), with data referring to the same point in time.

TABLE 51
PREPROJECT BANK ACCOUNT STATUS
ABA AND GEMINI SAMPLE DATA

GEMINI		ABA		GEMINI Total
		No Account	Account	
No Account	N	103	6	109
	%	94	6	72
Account	N	33	10	43
	%	77	23	28
ABA Total	N	136	16	152
	%	90	10	100

Data on current bank accounts do not reflect the same point in time in the current data set as in the ABA data set, since some of the borrowers had taken their previous loans two years earlier. The ABA data show 15 percent of the 152 clients having bank accounts, while the current data show 28 percent, as shown in Table 52.

TABLE 52
CURRENT BANK ACCOUNT STATUS, ABA AND GEMINI SAMPLE DATA

GEMINI		ABA		GEMINI Total
		No Account	Account	
Account	N	104	5	109
	Row %	95.4	4.6	71.7
	Col %	80.6	21.7	
No Account	N	25	18	43
	Row %	58.1	41.9	28.3
	Col %	19.4	78.3	
ABA Total	N	129	23	152
	%	84.9	15.1	100.0

If responses are accurate to both questionnaires, the difference between the ABA data and the current data represents a substantial increase in bank accounts during the course of the current loan (generally six months) or a substantial increase in bank accounts over a longer period of time among clients who have no current loans. There is, however, reason to suspect the accuracy of responses to either the ABA questionnaire, the current questionnaire, or both, because preproject status reports themselves are somewhat different in the two surveys.

Sources of Operating Capital

For operating capital, clients were asked if they had ever used a given source and then if they had used that source since joining the program.

As shown in Table 53, the taking in of a partner to finance a given order or piece of equipment was reported by only a minority of respondents but occurred in all sectors. In every sector, the level of this mechanism for increasing liquidity had decreased since the loans.

TABLE 53
OPERATING CAPITAL THROUGH PARTNERSHIP, GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	60	3	1
	%	95.2	4.8	1.5
Leather	N	14	1	0
	%	93.3	6.7	0.0
Wood	N	22	4	3
	%	84.6	15.4	11.5
Metals	N	18	4	1
	%	81.8	18.2	4.5
Other	N	21	5	2
	%	80.8	19.2	7.7
Total	N	135	17	7
	%	88.8	11.2	4.6

This decrease also characterizes other mechanisms of maintaining liquidity, which were not reported as widespread prior to the loan program but have decreased since then, as shown in Tables 54 through 58.

Only one of the respondents reported that he had used his credit history with ABA as part of his bank loan application. Interestingly, this respondent is currently paying off both a bank loan and an ABA loan and intends to continue using both sources in the foreseeable future, because his business is in a highly expansionary mode. He is also well beyond the eligibility criteria of ABA in number of employees. The large majority of respondents intend to keep taking loans from ABA, as shown in Table 59.

TABLE 54
OPERATING CAPITAL THROUGH SUPPLIER CREDIT, GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	46	17	12
	%	73.0	27.0	19.0
Leather	N	4	11	7
	%	26.7	73.3	46.7
Wood	N	17	9	5
	%	65.4	34.6	19.2
Metals	N	14	8	4
	%	63.6	36.4	18.2
Other	N	15	11	8
	%	57.7	42.3	30.8
Total	N	96	56	36
	%	63.2	36.8	23.7

TABLE 55
OPERATING CAPITAL THROUGH PURCHASER CREDIT, GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	55	8	5
	%	87.3	12.7	7.9
Leather	N	14	1	1
	%	93.3	6.7	6.7
Wood	N	22	4	2
	%	84.6	15.4	7.7
Metals	N	16	6	3
	%	72.7	27.3	13.6
Other	N	20	6	4
	%	76.9	23.1	15.4
Total	N	127	25	15
	%	83.6	16.4	9.9

TABLE 56
OPERATING CAPITAL VIA BANK LOANS, GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	59	4	1
	%	93.7	6.3	1.6
Leather	N	15	0	0
	%	100.0	0.0	0.0
Wood	N	25	1	0
	%	96.2	3.8	0.0
Metals	N	21	1	1
	%	95.5	4.5	4.5
Other	N	24	2	1
	%	92.3	7.7	3.8
Total	N	144	8	3
	%	94.7	5.3	2.0

TABLE 57
OPERATING CAPITAL VIA ROTATING CREDIT ASSOCIATIONS
GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	46	17	6
	%	73.0	27.0	9.5
Leather	N	11	4	2
	%	73.3	26.7	13.3
Wood	N	21	5	2
	%	80.8	19.2	7.7
Metals	N	23	3	0
	%	86.4	13.6	0.0
Other	N	20	6	3
	%	76.9	23.1	11.5
Total	N	117	35	13
	%	76.9	23.1	8.6

TABLE 58
OPERATING CAPITAL FROM FAMILY RESOURCES, GEMINI DATA

Sector		Never	Ever	Since Loans
Garments	N	41	22	12
	%	65.1	34.9	19.0
Leather	N	13	2	1
	%	86.7	13.3	6.7
Wood	N	14	12	7
	%	53.8	46.2	26.9
Metals	N	15	9	4
	%	59.1	40.9	18.2
Other	N	16	8	4
	%	69.2	30.8	15.4
Total	N	99	53	28
	%	65.1	34.9	18.4

TABLE 59
INTENTION TO REMAIN IN ABA PROGRAM, GEMINI DATA

Sector		Yes	No	Don't Know
Garments	N	48	15	0
	%	76.2	23.8	0
Leather	N	14	1	0
	%	93.3	6.7	0
Wood	N	20	5	1
	%	76.9	19.2	3.8
Metals	N	18	4	0
	%	81.8	18.2	0
Other	N	20	5	1
	%	76.9	19.2	3.8
Total	N	120	30	2
	%	78.9	19.7	1.3

Most of the respondents who said that they did not intend to continue in the program were either already late on a loan payment or expected to be unable to make the coming payment, so there was strong doubt in their minds as to whether they would be accepted for further loans.

QUALITATIVE THEMES

The study reported here took place during a compressed period of time: the original terms of reference allowed for 30 days in the field and 10 days of writing, and it was only midway through the study that an extension was granted. By this time, the questionnaire used here had long since been written in stone, and the field researchers were intensely frustrated by its failure to capture some of the most interesting aspects of the activities of SMI clients.

To compensate in part for this rigidity of methodology, the themes of spontaneous client conversations were recorded in detail, and these were subsequently classified. These are presented in Table 60, in order of frequency, less to define the areas of interest in full than to give an indication of points of interest that merit further investigation.

The numbers shown in the table do not tell us the total number of clients characterized by each theme, but only the number who spontaneously characterized their experience with the ABA program in a specific way without having been asked. They do, however, give important clues to areas where further investigation is warranted.

TRANSFER OF SMIs TO THE FORMAL CREDIT SYSTEM¹²

At the time that this project was approved in September 1988, SMIs had little access to formal-sector credit. The banks were unwilling to loan to proprietors who lacked substantial collateral and required a high input of loan processing time relative to loan size, and whose default rate was expected to be high.

It was hoped that a demonstration of the creditworthiness of the SMIs would help to establish a situation in which banks would view these businesses as a good potential market and begin to extend them credit. The best entry point for bank loaning to SMIs was thought to be those ABA clients who had repaid a series of loans to ABA and had reached maximum ABA loan size. These clients could graduate to the formal banking sector, using their credit records with ABA in their bank applications as a predictor of low risk of default.

¹² Although we continue to talk of SMIs, much of the concluding discussion applies also to SMEs.

TABLE 60
THEMES OF CLIENT DISCOURSE REGARDING PROGRAM PARTICIPATION

Theme	N
Extended payment period from merchants requires more working capital to sustain production	60
Opportunity to reduce costs through wholesale purchase of raw materials	38
Expansion of production capabilities through adding machinery	26
Opportunity to reduce costs through eliminating credit purchase of raw materials	24
Switch to preorder manufacture	20
Entry point for future large loan	20
Addition of commerce to production	19
Suddenly needed money for filling big order	19
Opportunity to sell more by offering credit to customers	17
To pay off raw materials debts in order to be able to buy more on credit	14
Crisis in household ate working capital	12
Wanted something family couldn't buy on installment	7
Sudden business-related expense (such as customs, roof repair, etc.)	6
Wanted side benefits (particularly marketing)	5
Wanted to change type of business	5
Wanted to add production to commerce	5
Wanted to employ labor now idle	3
Wanted to escape money lenders	1

For such graduation to occur, two things had to happen:

- The banks needed to adapt their policies and practices vis-a-vis SMIs; and
- SMIs themselves had to be willing and able to deal with the much more formal environment of the banks to access larger loans and lower interest rates.

It is still too soon to assess the potential willingness and ability of SMI proprietors to make the transition to the banking sector. Few ABA borrowers are yet at the stage where such a trade-off is meaningful; the program is still young and most of its borrowers are far from reaching maximum loan size and as yet have credit records too brief to be meaningful to banking institutions. Also, the banks are not yet SMI friendly, so the behavior of potential graduates is thus far in the realm of the hypothetical.

The potential for change in banking evaluation of creditworthiness was examined here through interviews with four banks participating in the ABA program as holders of the collateral funds. These

banks were found to use a combination of three techniques for evaluating creditworthiness: credit record checks, project appraisal, and formal securitization. Although the first two are an integral part of the evaluation, sufficient securitization of credit is the most important requirement.

Many banks attribute the high levels of securitization adopted today to the high default rates experienced over the last two decades of private sector lending in Egypt. Continuation of this policy is seen as necessary because the risk of default is heightened under depressed economic conditions and structural changes in the economy.

There are no specific laws or regulations that set securitization standards. The board of directors of each bank sets its own standards. Banks acknowledge that these standards automatically exclude most of the SMI credit market, but state that the prospects for changing the current evaluation techniques are low. Even for larger borrowers, a sound credit record is not sufficient justification for approval of new credit. There is little incentive for banks to take the first step toward SMI borrowers by reducing securitization levels and using other techniques for evaluating creditworthiness.

A key disincentive for banks to venture into this new market is the current uncompetitive structure of the banking sector. Large commercial or specialized (agricultural and industrial) public sector banks dominate the credit markets (75 percent of all deposits and 66 percent of all credit), and have the largest network of branches throughout the country. Historically these banks have enjoyed high levels of protection and privileges that eroded competitive pressures, leaving little incentive for them to seek product diversification or to pursue new markets aggressively.

Although the market structure is gradually becoming more competitive, much of the institutional culture remains in place and will take time to catch up. The reluctance of the banks, mainly those of the public sector, to accept differentiated interest rates for different risk levels after liberalization of interest rates is one example of these banking culture constraints. It is interesting that although private banks were swifter in adapting to the new control-free environment, they still do not find sufficient incentive to venture into new credit markets.

Successful transfer of the SMI borrowers from SMEP to the formal credit system is a function of supply and demand conditions in this segment of the credit market. On the supply side, banks in Egypt have no liquidity shortage. And if profitable, SMI lending would be an appropriate channel for investment. However, financial market conditions limit the opportunities for employing this liquidity.

Lending to SMIs is perceived as high risk, high cost lending, and seems unjustified when compared with the safer traditional lending market, and especially the relatively more rewarding treasury bills. Two-thirds of the LE 34 million in treasury bills are held by the commercial banks, amounting to 32 percent of their total deposits. These financial market conditions are such that the incentive for banks to venture into lending to the SMI sector is insufficient, especially during a period of dampened economic growth and major transformation of institutional and economic conditions in the country.

Positive Effects of SMEP

SMEP has had the very positive impact of generating considerable interest in SMI lending among Egyptian banks. Today, all four public sector banks have programs targeted at SMIs, and they are attempting to adopt credit and loan evaluation policies modeled on the SMEP experience.

One revealing case is that of the National Bank of Egypt (NBE). In 1992, NBE announced the allocation of LE 75 million to SMI credit at commercial interest rates, with very simple documentation and securitization requirements (ID and checks or promissory notes). The NBE venture, however, includes no provisions for credit delivery/extension that would ensure effective marketing of this type of credit. Windows for SMI credit were opened in some of NBE's branches in several cities, and SMIs are asked to apply through them. To date, the total credit delivered from these funds doesn't exceed 10 percent of available funds.

In 1993, the Social Fund for Development (SFD) committed more than LE 100 million to SME credit. This credit is delivered either directly by banks (mainly public sector) or through intermediary nongovernmental organizations (NGOs) that carry out credit marketing and processing, as in the case of the SMEP/ABA. Banks are allowed a 4 percent spread over the 6-8 percent cost of funds that SFD charges, with lending rates ranging from 10 percent for new businesses to 12 percent for existing ones.

Banks are expected to pay the cost of delivering credit out of the 4 percent. NGOs, however, are granted operations financing of up to 7 percent of the funds allocated to their SME credit programs, over and above the 4 percent allowed for the banks. This 7 percent covers such costs as credit extension and marketing. It is not surprising that the banks' SME credit programs have delivered less than 10 percent of their funds, while some NGOs have reached more than 60 percent in a shorter period of time.

Bank Requirements for SMI Lending

The willingness of donors to underwrite loan programs for SMIs may itself constitute a constraint on banks loaning their own funds to SMIs. None of the banks in Egypt have invested their own funds in SMI credit programs with an outreach credit extension model. It is estimated that at least LE 150 million are currently earmarked for SMI credit to be extended by five banks over the next three to four years. All of this funding comes from external sources.

The banks interviewed during this study state that SMI lending is only possible if their loan appraisal and credit marketing policies and practices are modified, and if more innovative techniques of marketing, such as those used by the SMEP are adopted. But these banks cite the high overheads required for ABA-type programs, and admit that they cannot compete with ABA's comparative advantages in outreach, flexible approval criteria, and fast-track loan processing and disbursement.

It is important to note that venturing into SMI lending without external assistance entails more for the banks than allocating funds or modifying evaluation criteria. It involves investments in acquiring a new lending know-how and building a decentralized network of credit delivery that may or may not yield a positive operating cash flow within two years or more. For the banks, successfully tapping the SMI credit market is a function of the extent to which they are able to understand the preferences of the SMIs and their willingness and ability to design profitable financial products that meet those preferences. This know-how is difficult to come by in the banking sector in Egypt.

The profitability of SMI lending and the conditions of investment in this business are still not clear to Egyptian banks. There is a pervasive perception among banks that SMI lending is a "development" activity rather than an investment business. And, in fact, recent research sheds some doubt about its profitability. When the commercial cost of funds invested in SMI credit is added to the cost of delivering this credit in the Ford Foundation-funded programs through NDB and PBDac, the business shows a negative operating profit.

Solid evidence to demonstrate the profitability of SMI lending using unsubsidized funding is critical for persuading Egyptian banks to invest in this business. The prerequisites for profitability, such as optimum size of portfolio, cost of funds, interest rates, risk provisioning, levels of return on investment, breakeven period, and so on, are not clear. Well-founded or not, there is a persistent perception among banks that investment in this business is not going to be rewarding unless subsidized or leveraged.

Recommendations

1. Support financial market reforms, especially with regard to increased competitiveness of the credit market, and encourage the government to reduce its domestic treasury bill debt to release funds towards financing the private sector.
2. Support the reform of the regulatory environment that governs SMIs, to make it more friendly.
3. Continue to disseminate the experience of SMEP in SMI lending to the widest possible banking audience, focusing on the private sector banks; target these banks with illustrative evidence of the profitability of SMI loans under a subsidy-free environment.
4. Negotiate with banks ways to simplify the documentation that they require for processing credit applications.
5. Encourage SMIs to build equity through formal savings.
6. Encourage further interaction of SMIs with banks — for example, by increased disbursing of loans into borrowers' bank accounts.

It must be recognized that the banks may be a long time in recognizing the potential of the SMI credit market. ABA's vital role of extending credit to this sector is likely to continue for the foreseeable future.

SECTION THREE

CONCLUSIONS AND RECOMMENDATIONS

What is happening in the small-scale industrial sector in Alexandria? What has been the impact of the credit program administered by the ABA on its clients? How can impact be more effectively tracked? These questions must be answered together if the true impact of the program is to be seen.

SMIs in Alexandria are in deep trouble in the mid-1990s, perhaps even more so than in the rest of Egypt. Consumer purchasing power is low, and competition has increased through the founding of new workshops and, in some sectors, the establishment of large factories. Squeezing is taking place at all points along the production/consumption line. Consumers are purchasing much less, which reduces turnover in retail shops and the liquidity of retailers. Wholesalers who were, in many cases, retailing in Libya, no longer have this remunerative channel and are also squeezed.

Producers are squeezed by the merchants, who no longer pay upon delivery of goods, but rather stretch out payments over an extended and unpredictable period of time. The working capital that proprietors found adequate during the 1980s is no longer sufficient to keep their shops in production or their workers on the job full-time. Down time has risen enormously because of lack of liquidity for purchasing raw materials. Moneylenders have begun to appear in the SMI market for the first time since the Revolution, and suppliers are rationing credit and insisting on documentation of transactions.

Thus far, the proprietor with liquidity can maintain his business, but he must be able to wait for his payments. Default from merchants is not extensive, although it has begun to occur. Some workshops have attempted to diversify their operations, adding retailing to production, or investing in small items produced without prior order as an addition to their main, on-order business.

Under these circumstances, the availability of credit from ABA is a godsend. It enables workshops to keep producing when the merchants or subcontracting workshops are slow to pay, and has supported diversification. ABA's rapid processing of loans makes it possible to fill the gap, or some of it, quickly when unexpected payment delays occur or when sudden emergencies sap already limited operating capital.

If and when the Egyptian economy begins a turnaround or the Libyan currency strengthens, raising demand for Alexandrian products in particular, workshops are likely to use credit to grow in employment, production, and income. Today, however, they are using it chiefly to stay in business. Under such conditions, it is important that the ABA loans begin at a very modest sum and increase only slowly as the client moves through the progression of loans. Already there have been a number of bankruptcies of clients, but none so catastrophic that substantial default has occurred.

For all these reasons, a questionnaire designed to measure growth is not relevant to the situation of most of those responding, nor is it tapping some of the key dynamics of the SMI sector. Such a questionnaire becomes even less relevant as new types of clients, not involved in industry, are drawn into the program in large numbers. Ongoing entry of these data is time-consuming and expensive, and needs rethinking in light of its uses. The recommendations of the GEMINI team are therefore as follows:

1. Administer the socioeconomic form beginning with the first loan, including personal data (gender, marital status, age, number of dependents, and literacy); do not repeat these questions in subsequent administrations.
2. Reduce the other items in the socioeconomic survey form to those most readily quantified, most likely to be answered accurately, and most susceptible to change over time: number of employees by gender, current rates of compensation, subsector of activity, ownership structure, registration status, and channels of marketing of products. Ask these questions only for current status.
3. Add a code for client's status with the program, so that late payments and rejections for new loans are recorded as such in a simple form that allows tracking.
4. Abandon completely the idea of tracking impact of credit on the client's personal affairs (improvements in household quality of life, expenditures on children's educations) as a contradiction in terms for a program seeking to put credit to SMIs on a market basis; treat clients as businesspeople rather than as beneficiaries.

These suggested data are adequate for drawing samples for both qualitative or quantitative studies of current trends in the marketplace and among clients of the program. They allow monitoring of the portion of clients in the micro as opposed to small category, gender issues, distribution of clients across sectors, and other key indicators of program function.

The need for exploratory studies is ongoing but shifting in focus, and the type of study needed fits poorly into a structured, universal research instrument. Some of the key questions at present include the workings of women's workshops, particularly the start-up workshops, and predictors of success and failure, the validity of the assumption that inclusion of merchants as eligible beneficiaries will have a positive impact on workshops, trends in squeezing of proprietors by merchants, and the needs of clients for adaptation in the credit extension system.

Such studies are best carried out by an in-house social researcher, or by a retained consultant who has an ongoing relationship with both ABA and the client population. As the program evolves and grows, the services of such a social researcher could constitute an invaluable resource for program management.

This strategy means abandoning the idea of ongoing demonstration of the utility of credit is useful to clients in the variety of ways now being focused on by the ABA socioeconomic impact form. As Elizabeth Rhyne (1992) has called for a rethinking of program monitoring and evaluation:

In keeping with the emphasis on building healthy financial institutions, the new view would submit to market discipline as one of the most reliable and relevant indicators of performance. Each of the two evaluation levels [that of the client and that of the institution] is associated with a strong commercial test. The service-client relationship is best measured by a market test of demand, or willingness of clients to pay. If people pay the 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. By their actions clients reveal information on the value of benefits that is more credible than verbal responses to questionnaires....

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, which are

interdependent, make finance programs "self-evaluating." The tests are easily verified, and if both are passed, evaluators can be confident that the program is successful (p.4).

Because the ABA program has been shown to be financially sound, acceptance of the evaluation criterion of ongoing demand for credit by SMIs as an indication of success would suffice. Such an acceptance would free ABA to fine-tune its system, and to test new approaches, new types of clients, and new strategies for making credit available to special groups; this would be a signal gain in the information available to program management and to USAID.

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ANNEX A
SCOPE OF WORK
Small and Micro Enterprise Project
Egypt (263-0212)

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Egypt (263-0212)

1. Introduction. The Small and Micro Enterprise (SME) Development Project (263-0212) is a \$44 million, nine year project. It was authorized in 1988 and amended in September 1992; the current Project Assistance Completion Date (PACD) is September 30, 1997. The goal of the project is to increase employment and profitability of small and micro entrepreneurs in Cairo and Alexandria and selected outlying governorates in Egypt, through the establishment of SME foundations. The purpose of these foundations is to function as a bridge between existing banks and the SME sector to provide credit and technical assistance to small and micro enterprise borrowers. The formal banking system has been unable to serve the credit demands of SMEs because of a general preference to serve larger and more profitable clients, the misperceptions that SME borrowers are high risks, and the unrealistic high collateral requirements.

Presently two foundations, the Alexandria Businessmen's Association (ABA) in Alexandria and the Egyptian Small Enterprise Development (ESED) Foundation in Cairo, are delivering credit services to small (6-15 employees) and micro (1-5 employees) enterprises.

2. Background information indicates that prior to this project very little assistance was provided to the small and micro enterprise sector and data on the sector was, and still is, quite limited. With AID's experience in SME development in other countries, a project was designed to delivery and recover market interest rate loans in the areas of Cairo, Alexandria and outlying governorates in Egypt.

Although this has been the first attempt in Egypt to deliver market interest rate loans to SME clients on a broad scale, experience to date has been positive. End-use lending began in Alexandria in January 1990; the first loans were disbursed in Cairo in November 1990. The two foundations have cumulatively extended loans to approximately 7,000 borrowers, valued at about LE 33 million as of February 1993. The average loan length is about six months; in Alexandria nearly half of the loans being extended are to repeat borrowers. In an attempt to record and measure the impact of the SME project on borrowers and other beneficiaries a system for collecting economic data on them was employed by the ABA foundation as an integral part of the Management Information System. The importance of a comprehensive, accurate, and reliable data base on the economic impact of the project cannot be underestimated. The data base will be used as guidance in our discussions with SME foundations, other donors and on credit policy and technical assistance strategy for the SME sector.

3. The primary purpose of the evaluation is to examine the methodology used to collect economic data and the accuracy of economic data in the SOCIO ECONOMIC IMPACT ON SURVEYED CLIENTS (SEISC) section of the ABA foundation's SOCIO ECONOMIC SURVEY, and identify other indicators for measuring the impact of the SME project in Alexandria. This evaluation will be primarily used by USAID/Cairo management as guidance in our support to the SME sector.

4. The statement of work, methods and procedures to be followed are stated below. The field work portion of the evaluation will be conducted only in Alexandria Egypt.

I. Shall examine the methodology used to collect, analyze and report statistics in the SEISC section of the foundation's SOCIOECONOMIC SURVEY to determine its efficiency and reliability. (See attachment page two.)

II. In conjunction with AID, shall select a statistically significant number of the client population (to date a total of approximately 2,222 clients have been surveyed) by a stratified random sampling from the SEISC section to survey and research the statistics stated in each of the following fields (see attachment page two):

- * Employment
- * Change of category
- * Average monthly wages L.E.
- * Amount of production L.E.
- * Materials purchase
- * Bank account
- * Existing jobs strengthened

III. Shall determine if there are discrepancies between data reported in the SEISC section and the findings of the team. If so, the discrepancies shall be precisely documented.

IV. Shall determine if each of the indicators listed in 4.II are meaningful indicators of project impact. If not, suggest which indicator/s should be modified, eliminated or added.

V. Shall determine if other socio-economic data can be reliably collected and included in the SEISC section to provide a broader and more complete picture of project impact.

VI. From the sample survey of entrepreneurs in the SEISC section, the consultant shall determine which productive activity (i.e., woodworking, garments, leather, etc.) generates the greatest increase in productivity, employment and wages per LE of credit disbursed, including repeat loans.

VII. Shall suggest changes, if necessary, in the methodology used to collect data for the SEISC section to increase its effectiveness, efficiency and reliability.

VIII. Shall determine the feasibility for measuring the linkage multiplier effect (i.e., secondary and tertiary economic benefits) to local households and the local community, resulting from credit to SME borrowers in that locality.

IX. If item No. 4 VIII is feasible, the contractor shall develop a technique/methodology for accurately measuring the multiplier effect to local households and the local community, resulting from credit to local SME borrowers.

X. The contractor will also provide guidance on the achievement of an important long term AID SME program goal; to facilitate the transfer of SME borrowers to the formal financial system. Accordingly, the contractor will carefully examine: borrowing trends of ABA/SME clients since the initiation of the AID SME program; experience gained by those commercial banks participating in the ABA/SME program (e.g., current perceptions towards potential SME borrowers and willingness to provide credit to SMEs); prospects that ABA clients will qualify in the future for credit through commercial banks; extent to which current and proposed ABA lending practices will discourage commercial bank lending to SMEs; and remaining obstacles to SME lending through the formal financial system. The contractor will outline proposed development initiatives to encourage SME lending through the formal financial system.

ANNEX B

**ALEXANDRIA BUSINESSMEN'S ASSOCIATION
SMALL & MICRO ENTERPRISES PROJECT**

Survey Questionnaire for Follow-up on Clients

with Comments

Personal Data**Name of client.....****Gender:** male... female...**Social status:** married... single... age....**Number of dependents.....****Level of education:** literate.... middle level education... higher education.... illiterate....

The preceding information need not be asked each time the client applies for a loan. Some of the variables remain constant (name, gender) and the others are unlikely to be used to monitor change. The original loan application, which does not form part of the survey progression, is sufficient for these items, and the extension officer can simply fill in name when he completes the subsequent forms.

Data on the Place**Name of the business.....****District..... Code.....****Legal form [of business ownership]**

individual.....	joint....
simple partnership....	other (specify).....

Activity

ready-to-wear garments.....	metals and plastic....
shoes and leather goods.....	other (specify).....
carpentry and wood products....	

These categories make no allowance for differences between industrial, commercial and service enterprises, so much data is lost here without any reduction in effort in collection.

Legal status

license...	tax card...
commercial registration...	insurance...
industrial registration...	

Data on Use of Loan**Number of loans taken.....****First loan: Date..... Value..... Payment period (months).....****Last loan: Date..... Value..... Payment period (months).....**

Data on loan date, value and payment period is already included in MIS, so there is no need to ask it here.

Purpose of loans

Purchase of inputs and production necessities.....
 Purchase of fixed assets.....
 Purchase of equipment/machinery....
 Other (specify).....

Until September, 1993, borrowers were told that they could use their loan funds only for working capital, so that those who used the loans to purchase equipment or machinery frequently did not say so on the form. In any event, it is quite difficult to say which money, out of a total shop budget, paid for which expenditures.

Did you have a bank account before working with the project?

yes.... no....

It is unnecessary to ask this question with reference to pre-project status on each administration of the questionnaire.

Do you have a bank account now? yes... no...

Data on His Workers

Present number of employees:

permanent males...	temporary males...
permanent females...	temporary females...

Number of workers at beginning of cooperation:

permanent males...	temporary males...
permanent females...	temporary females...

Again, this question should be asked at the outset, and not subsequently. Respondents have difficulty recalling their numbers of workers in the past, particularly for temporary workers. Also, the term "permanent" needs definition, as for many it means "full time," regardless of duration. These are difficult data as well because there is considerable seasonality in hiring though not in loan application.

Average wage now:LE/month

This question is very difficult to answer accurately, as it requires calculations of all payments to all employees, permanent and temporary, and then an averaging operation. If there are more workers at present than in the past, it is likely that the newer workers are younger, and therefore receive lower wages, artificially bringing down averages.

Average at beginning of cooperation:LE/month

Reason for increase

Natural increase.... Overtime...
 Using skilled workers... Other (specify)...

This question assumes that there has been an increase in total wages paid per worker, and does not allow for decreased or constant wages. It also causes confusion between day rates, which have sometimes increased, and monthly level of compensation, which have sometimes decreased at the same time, due to increased down time.

Information on Use of Loan

How do you now get raw materials? cash.... credit....

How did you get raw materials in the beginning?

cash.... credit....

Is there an advantage in this? yes.... no....
 If yes, what?

better materials... freedom to buy anywhere...
 reduced cost... other (specify).....

The responses here do not exhaust the logical possibilities and are therefore inadequate. One major reason for switch to cash purchases is that the market has changed dramatically over the recent past. Many producers, particularly the newer and smaller ones, no longer have access to raw materials on credit.

Can you now store a quantity of inputs sufficient for operation? yes... no...

This question assumes that there was a past problem with storage of inputs, which is an empirical question. In fact, this was not reported by any respondents as a past or current problem.

Information on Production

What kind of production?

by piece... by piece [volume]....
 by weight...

Current value of production (LE/month).....

Egyptian producers will not answer such a question accurately on a structured survey form.

Value of production at the beginning of cooperation (LE/month).....

Have you experienced a rise in quality of your product?

yes... no...

Information on Sales

How are sales made?

directly to customer....
shops...
wholesale merchants....
export....
other....

How were sales made at the beginning of cooperation?

directly to customer...
shops...
wholesale merchants...
export...
other...

Here it is assumed that any change in sales channels is due to the loans themselves. It also fails to define clearly the meaning of "export," whether this means that the shops themselves were exporting or rather selling to wholesale merchants. In most of the cases seen in the field, borrowers who said they formerly exported were referring to sales to wholesale merchants who resold to Libyan markets. There is currently very little export to Libya, so that wholesaling has decreased. This has nothing to do with the loans program.

Has there been an increase in the number of clients?...

yes...
no...
Number now...
Number at beginning of cooperation....

This question asks about numbers of clients without categories; the producer who has ceased to sell to wholesalers and now deals with individuals, due to collapse of the Libyan market, would thus automatically have more clients but not be in a better position in the market.

Has the project enabled you to get out of the control of large merchants?

yes...
no...

This question assumes that the SMIs have at any point been under the control of large merchants, which is not generally the case. It can only be asked of a borrower if he is first asked if he was in this situation prior to the program. There is some question as to whether it makes sense to ask it over and over again.

Information on Increase in Income

The title of this section is a clear indication of what is expected on the form.

Have you had an increase in income as a result of the project?

yes... no....

If so, what is the reason?

natural increase in market.....
increase in sales price.....
increase in sales.....
other (specify).....

How have you used your increased income?

purchase of machinery.... purchase of fixed assets....
expansion of shop.... savings....
purchase of household necessities...
purchase of car....
to raise educational level of children....
other (specify)....

This question treats the borrower as a "beneficiary," and is inappropriate in a program which is designed to redefine the small producer as a businessman who is a sound borrower at commercial interest rates, from commercial banks. It annoys the borrower, first because it is referring to the impact of small loans (as little as a total of LE 500, and second because it contains an implied criticism of his expenditure on his household. It puzzles the borrowers, as they think it self-evident that any increased income is being used to pay off their loans. It should be eliminated.

Information on Fields of Training

What fields of training would you like to participate in if available?

technical fields

product improvement.... finishing and packaging...
maintenance of machinery... profiting from the library...

management fields

bookkeeping... pricing... taxation...
insurance... marketing...

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This question is unconnected with training programs offered to the borrowers, and unconnected with the capacity of the ABA.

ANNEX C
GEMINI
QUESTIONNAIRE
(In English and in Arabic)

Small and Micro Enterprises Project
Alexandria Businessmen's Association
Follow-Up Questionnaire for Clients

_ _ _ _ _ Serial Number

Client Identification Information

Extension Officer : _____
Sector : _____
District Code : _____
Name of Client : _____
Address of Client : _____

Loan History

Order	Date Taken	Amount	Main Use	Code
1				
2				
3				
4				
5				
6				
7				
8				
9				

Circle last loan if current.

Codes: 1-raw materials 2-equipment/machinery 3-labor 4-investment in premises 5-other

Personal Data

- Gender: 1-male 2-female
- Age
- Education in completed years
- Type of highest level of education: 1-academic 2-industrial/technical 3-commercial 4-Other _____
- Marital Status: 1-Single 2-Married
- Number of dependents (counting self)

Occupational History

- Grandfather's occupation: _____
1- same 2- other industry 3-other
- Father's occupation: _____
1- same 2- other industry 3-other
- Years client in this trade (date: _____)
- Status at entry: 1-owner 2-skilled worker 3-apprentice 4- other: _____
- Previous occupation: _____
1- same 2- other industry 3-other
- Skills in this industry acquired in 1-workshop of relative 2-workshop of nonrelative
3-technical school 4-other _____

Serial Number

Information on Workshop

— Tenure: 1-rent 2-own

— Location: 1-within dwelling, shared space 2-within dwelling, separate 3-exterior in building with other units
4-exterior in own building

— Years since establishment (date_____)

— First premises? 1-yes 2-no

— Acquisition: 1-established 2-inherited 3-purchased 4-other_____

— Ownership structure: 1-individual 2-simple partnership 3-joint 4- other_____

Official registration obtained

— License: 1-yes 2-no

— Commercial registration: 1-yes 2-no

— Industrial registration: 1-yes 2-no

— Tax card: 1-yes 2-no

— Insurance: 1-yes 2-no

— — — — — Serial Number

Information on Finance

- Source(s) of founding capital (if founder):
- savings: 1-yes 2-no
- family money: 1-yes 2-no
- sale of property: 1-yes 2-no
- other: _____
- Largest source: 1-savings 2-family money 3-sale of property 4-other

Which sources have you used for investment in your workshop or ensuring liquidity during the past five years?
(excluding founding capital)

Type	Ever used 1-yes 2-no	Since Loan Program 1-yes 2-no	Reason for using	Code
Partnership				
Supplier Credit				
Purchaser Credit				
Bank Loan				
Gamaya				
Family/Friends				
Other				
Other				

1-Additional liquidity 2-Different purpose 3-Flexible repayment 4-Larger size 5-Other

Serial Number

For those who have taken a bank loan since joining program:

Loan size _____

Name of Bank _____

Did you use your credit record in the program in your application?

1-yes 2-no

Did you have a bank account before joining the program ? What kind?

1-savings 2-checking 3-both 4-none

Do you have a bank account now? What kind?

1-savings 2-checking 3-both 4-neither

Bank: _____

Do you intend to apply for more loans from the program?

1-yes 2-no

If no, why not? _____

Information on Employees

— — — — — Serial Number

Full-time employees present at time of loan program entry

Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Name													
Sex M 2-F													
Age													
Education													
Occupation													
Skilled Unskilled													
Employment basis 2-T													
Self-employed ? 2-N													
Loan month													
Net LE/month													

Serial Number

Full-time employees hired after entry to loan program

Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Name													
Sex M 2-F	*												
Age	*												
Education	*												
Occupation													
Skilled Unskilled	*												
Payment basis Piece Time	*												
W LE/month	*												
Replacement New job	*												
From other Workshop? Yes 2-no	*												

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Information on Product(s)

Products (circle product accounting for greatest volume of sales)

What percentage of your production of your main product is carried out on the basis of prior orders?
(as opposed to production for market)

Does the person/firm ordering make an advance payment? 1-yes 2-no

If yes, what percent of price is paid as advance?

Are you paid in full on delivery? 1-yes 2-no 3-other

What is the average number of units per order?

Who are your main customers for your main product? 1-individuals 2-retail shops 3-other workshops

4- wholesale merchants 5-other

How many clients do you have for your main product? (above 99 enter 99)

What percentage of production cost for your main product is accounted for by labor?

What percentage of production cost for your main product is accounted for by raw materials?

Are raw materials available to you on credit? 1-Yes 2-No

What is the percentage markup for credit for the main item purchased in this way?

Serial Number

Over what period of time must the materials be paid for which are bought on credit? (express in days)

What percentage of production cost for your main product is account for by energy?

Impact of Loan Program

Have the project loans made it possible for you to achieve cost reductions for your main product? 1-yes 2-no

If yes, what percent reduction in unit cost?

If yes, in which areas:

labor/wages	1-yes 2-no
energy	1-yes 2-no
raw materials	1-yes 2-no
subcontracting	1-yes 2-no
other	1-yes 2-no

Which is the most important factor in reduction of cost for main product: 1-labor/wages 2-energy 3-raw materials
4-subcontracting 5-other _____

What percentage of your raw materials did you buy on credit before the project?

What percentage of your raw materials do you buy on credit now?

Have the project loans made it possible for you to increase your volume of sales? 1-yes 2-no

If so, what is the reason for this increase?

Increase in number of marketing channels	1-yes 2-no
Change in type of marketing channels (i.e., retail to wholesale merchants)	1-yes 2-no
Increase in production	1-yes 2-no
Reduction in unit price	1-yes 2-no
Increase in quality	1-yes 2-no
Addition of new products	1-yes 2-no
Other	1-yes 2-no _____

C-11

Serial Number

If so, what percentage increase have you had in total sales value?

Has the loans program enabled you to increase your own income?

1-yes 2-no

If so, how have you used the increased income?

Increased investment in materials 1-yes 2-no

Increased investment in equipment/machinery 1-yes 2-no

Increased investment in skilled labor 1-yes 2-no

Increased investment in workshop premises 1-yes 2-no

Investment outside workshop 1-yes 2-no

Increased expenditure on household 1-yes 2-no

Other 1-yes 2-no

— — — — — Serial Number

Temporary Employment

— || Have you used any irregular employment over the past year? 1=yes 2=no

Order	Type*	Portion of Day**	Number of Days	Skill		Gender		Rate
				1=yes	2=no	1-Male	2-Female	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

* 1-temporary (less than 365)

** use fractions when needed

2- seasonal

3- part time all year

4- other (specify)

Serial Number

Have you used any irregular employment before joining the loan program?

1=yes 2=no

Order	Type*	Portion of Day**	Number of Days	Skill		Gender		Rate
				1=yes	2=no	1-Male	2-Female	
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

* 1-temporary (less than 365)

** use fractions when needed

2- seasonal

3- part time all year

4- other (specify)

مشروع تنمية المنشآت الصغيره والحرفيه
 جمعيه رجال اعمال الاسكندريه
 استثماره المتابعه الخاصه بالعملاء

Client Identification Information

اسم الاختصاصي : _____
 النشاط : _____
 كود المنطقه : _____
 اسم العميل : _____
 عنوان العميل : _____

Loan History

بيانات الاقراض

الكود	الاستخدام الرئيسى	القيمه	تاريخ القرض	معلم
				1
				2
				3
				4
				5
				6
				7
				8
				9

ضع علامه على القرض الحالى

1- المولد الخلم 2- العدد والالات 3- العماله 4- استثمار فى المكان 5- أخرى

Personal Data

بيانات شخصية

- النوع : 1- نكر 2- أنثى
- المن
- عدد سنوات الدراسة التامة
- نوع أعلى مرحلة تعليمية : 1- على 2- فني/صناعي 3- تجاري 4- أخرى
- الحالة الاجتماعية : 1- أعزب 2- متزوج
- عدد من يعولهم العميل (بحسب العميل)

Occupational History

تاريخ العمل

- عمل اتجد:
- 1- ممثل 2- حرفه مختلفه 3- أخرى
- عمل الاب:
- 1- ممثل 2- حرفه مختلفه 3- أخرى
- عدد سنوات خبره العميل في هذا النشاط (التاريخ)
- الحاله عند بدء النشاط 1- صاحب عمل 2- عامل ماهر 3- صبي 4- أخرى:
- العمل السابق:
- 1- ممثل 2- حرفه مختلفه 3- أخرى
- اكتساب المهاره اللازمه هذه الحرفه في 1- ورشه اقارب 2- ورشه غير اقارب 3- تعليم فني / صناعي 4- أخرى:

Information on Workshop

بيانات خاصه بالمنشأه

- الحيازہ : 1- إيجار 2- ملك
- الموقع 1- داخل الوحدة السكنية . مشترك 2- داخل الوحدة السكنية، مخصص 3- ضمن عقار يضم وحدات أخرى كود 4- عقار مستقل
- عدد السنوات في هذه المنشأه (التاريخ)
- هل بدأت في هذا المكان ؟ 1- نعم 2- لا
- المصدر 1- تأسيس 2- ميراث 3- شراء 4- أخرى
- الكيان القانوني : 1- فردى 2- توصيه بسيطه 3- شركه تضامن 4- أخرى
- الحصول على التسجيل اترسمى
- الرخصه : 1- نعم 2- لا
- سجل تجارى : 1- نعم 2- لا
- سجل صناعى : 1- نعم 2- لا
- بطلقه ضريبيه : 1- نعم 2- لا
- للتأمينات : 1- نعم 2- لا

- مصدر / مصادر رأس المال عند بدايه النشاط
- مدخرات : 1-نعم 2-لا
 - أموال الاسره : 1-نعم 2-لا
 - بيع ممتلكات : 1-نعم 2-لا
 - أخرى:
 - أهم مصدر : 1- مدخرات 2- أموال الاسره 3- بيع ممتلكات 4- أخرى

ما هي مصادر الاستثمار - أو مصادر تمويل السيولة - التي تستخدمها خلال الخمس سنوات الماضيه (باستثناء الأصول الثابته)

النوع	الاستخدام 1-نعم 2-لا	منذ برنامج القروض 1-نعم 2-لا	سبب الاستخدام	الكود
مشاركه				
انتمان من المورد				
انتمان من التاجر				
قرض بنكي				
جميعه				
اسره / اصدقاء				
أخرى				
أخرى				

1- زياده في السيولة 2- أسباب مختلفه 3- تسهيلات في الدفع 4- حجم أكبر 5- أخرى

لمن أخذ قرض بنكي منذ انضمامه الى البرنامج

حجم القرض:

اسم البنك:

هل استخدمت البرنامج كمسابقه أنتمان في طلب الحصول على القرض ؟ 1- نعم 2- لا

هل كان لديك حساب في البنك قبل انضمامك للمشروع ؟ ما هو نوعه ؟
1- أنخار 2- حساب جارى 3- معا 4- لا يوجد

هل لديك حساب بالبنك الان ؟ ما نوعه ؟
1- أنخار 2- حساب جارى 3- معا 4- لا يوجد

اسم البنك:

هل تتوى طلب قروض أخرى من البرنامج ؟ 1- نعم 2- لا

في حقله لا : لماذا ؟

Information on Employees

بيانات خاصة بالعمالين

تملأ للعمالين طول الوقت عند بدايه الانضمام للمشروع

الرقم	1	2	3	4	5	6	7	8	9	10	11	12	13
الاسم													
النوع ذكر-1 أنثى-2													
السن													
سنوات الدراسة													
العمل													
ماهر-1 غير ماهر-2													
اسلوب السداد قطعة-1 وقت-2													
هل مازال يعمل ؟ نعم-1 لا-2													
قبل القرض ج م / شهر													
الآن ج م / شهر													

تملى فى حالة وجود عاملين جدد طول الوقت بعد الانضمام الى البرنامج

الرقم	1	2	3	4	5	6	7	8	9	10	11	12	13
الاسم													
النوع 1- ذكر 2- أنثى													
المن													
سنوات الدرامه													
العمل													
1- ماهر 2- غير ماهر													
الاجر 1- بالقطعه 2- بالوقت													
الان ج م / شهر													
1- بدل 2- عمل جديد													
من ورشه اخرى نعم-1 لا-2													

بيانات عن المنتج

Information on Product(s)

المنتجات (ضع دائره على المنتج الاكثر مبيعا)

ما هي نسبته الطلبات المصنقه في أهم منتج ؟
(بالمقارنه للانتاج الموجه للسوق)

هل يدفع مقدما للطلبات المصنقه ؟ 1- نعم 2- لا

لو نعم ، ما نسبته ما يتم دفعه مقدما ؟

هل يتم المدااد بالكامل عند التسليم ؟ 1- نعم 2- لا 3- أخرى

ما هو متوسط عدد الوحدات في الطلبيه ؟

من هو نوع العميل الرئيسي لأهم منتج ؟ 1- أفراد 2- محلات تجزئه 3- ورش أخرى 4- تجار جملة

5- أخرى:

ما هو عدد عملاء لأهم منتج ؟ (ما فوق 99 أدخل 99)

ما هي نسبته تكاليف العماله من تكلفه الانتاج الكلي لأهم منتج ؟

ما هي نسبته تكاليف المواد الخام من تكلفه الانتاج الكلي لأهم منتج ؟

هل تحصل على المواد الخام بالاجل ؟ 1- نعم 2- لا

ما هي نسبته الزيادة في سعر اشخامات الاساسيه في هذه الحاله ؟

في حاله الشراء بالاجل - حدد فتره المدااد بالايام ؟

ما هي نسبته تكاليف الطلقه من نسبته الانتاج الكلي لأهم منتج ؟

Impact of Loan Program

تأثير برنامج القروض

هل أتاحت لك قروض المشروع توفير في تكلفه المنتج الرئيسي ؟ 1- نعم 2- لا

في حالة نعم ، ما هي نسبته للتوفير في سعر الوحدة ؟

في حالة نعم ، فيما:

العماله/الاجور: 2-لا 1-نعم

الطاقة: 2-لا 1-نعم

المواد الخام: 2-لا 1-نعم

التعاقدات الخارجيه: 2-لا 1-نعم

أخرى: 2-لا 1-نعم

ما هي أهم العوامل المخفضه لتكلفه المنتج الرئيسي ؟ 1- العماله / الأجور 2- الطاقة 3- المواد الخام 4- التعاقدات شخارجيه 5- أخرى:

ما هي نسبته ما كانت تحصل عليه من المواد الخام بالأجل قبل المشروع ؟

ما هي نسبته ما تحصل عليه من مواد خام بالأجل الآن ؟

هل مكنتك القروض من الزيادة في حجم المبيعات ؟ 1- نعم 2- لا

في حالة نعم ، ما هو سبب هذه الزيادة ؟

زياده في عدد طرق التسويق: 2-لا 1-نعم

تغيير في نوع طرق الانتاج (مثلا من تجار تجزئه الى جمله): 2-لا 1-نعم

زياده في الانتاج: 2-لا 1-نعم

تخفيض في سعر الوحدة: 2-لا 1-نعم

تحسين في جوده المنتج: 2-لا 1-نعم

اضافه منتجات جديده: 2-لا 1-نعم

أخرى: 2-لا 1-نعم

- في حالة زياده المبيعات , ماهى نسبة الزيادة ؟
- هل مكنك برنامج القروض في زياده نخلك ؟ 1-نعم 2-لا

في حالة نعم . ما هى استخدامات هذه الزيادة

- زيادة فى الخامات: 2-لا 1-نعم
- اضيقه فى العدد و الآلات: 2-لا 1-نعم
- الاستعته بعماله ماهرة: 2-لا 1-نعم
- استثمار فى مبانى المنشأه: 2-لا 1-نعم
- لستثمر خارج الورشه: 2-لا 1-نعم
- زياده فى مصاريف المنزل: 2-لا 1-نعم
- أخرى: 2-لا 1-نعم

Temporary Employment

عماله غير دائمه

هل استخدمت أى عماله مؤقتة خلال العام الماضى ؟ لا-2 نعم-1 || —

الاجر	النوع 1- نكر 2- انثى	المهاره 1- نعم 2- لا	عدد الايام	جزء من اليوم =	نوع العماله =	للمسلسل
						1
						2
						3
						4
						5
						6
						7
						8
						9
						10
						11
						12
						13
						14
						15

* 1- مؤقت (أقل من 365) 2- موسمي 3- بعض الوقت طول العلم 4- أخرى (حدد)

** استعمل كسر عند اللزوم

هل استخدمت أى عماله مؤقتة قبل انضمامك الى برنامج القروض ؟ 2-ل 1-نعم

الاجر	النوع 1-نكر 2-انثى	المهارة 1-نعم 2-لا	عدد اذيات	جزء من اليوم**	نوع العماله*	المتنسل
						1
						2
						3
						4
						5
						6
						7
						8
						9
						10
						11
						12
						13
						14
						15

* 1- مؤقت (اقل من 365) 2- موسمي 3- بعض الوقت طول العلم 4- أخرى (حدد)

** استعمل كمبر عند اللزوم

ANNEX D
SAMPLING METHODOLOGY
for GEMINI Questionnaire

The current study is essentially a descriptive one, although some of comparisons and correlations are performed. Thus the sample size was determined on the formula for prevalence studies, which is

$$n = \frac{Z_{\alpha} * P_o * (1 - P_o)}{d^2}$$

Where:

Z_{α} = Z value corresponding to the significance level (α) chosen

P_o = Expected proportion of studied criterion

d = Tolerance (difference at which proportion should be significantly different than the expected one)

The significance level was chosen to be 0.01, the tolerance 0.1% and P_o was taken as 0.5 as no prior information was available for any of the studied variables. This means that we assume that each of the criteria is prevalent in about 50% of the population, and observing an occurrence rate different by $\pm 10\%$ of this value would be considered significant with an error probability of 1%.

Applying the formula based on these assumptions resulted in a figure of 166. This means that at least 166 cases should be analyzed in order to satisfy these assumptions. However, since the non-response rate is expected to be very high due to reasons that are discussed elsewhere, we assumed that it would be 30%. Thus, we applied the modification formula for non-response, which is:

$$n' = \frac{n}{1 - r}$$

Where:

n' = size of group to be studied

n = calculated size (actually required size)

r = non-response rate

This resulted in a sample of 219 cases, equivalent to 6.61% of the total number. (Note that the population of this study was 3,315 clients, extracted from more than 9,000 clients, after excluding clients working in trade and after excluding workers having no social data — in other words, only one loan).

Because sector of workshop and number of loans were expected to affect the variables of interest, these factors were used for stratification of the sample. Trade sectors were classified as garments, leather, wood, metals, and other. The loans were divided into three categories according to number of loans taken out (1-3, 4-6, and 7+). Cross-tabulating the two variables resulted in a two-way table. We selected a simple random sample from within each of the cells in the table, with the same percentage. The final selected sample after rounding was 241 cases. Ultimately 152 cases were collected, which fulfills the sample requirements of the current assumptions.

References:

Beth Dawson-Saunders and Robert G. Trapp, 1990, *Basic and Clinical Biostatistics*, Englewood Cliffs, New Jersey: Prentice-Hall.

Seymour Sudman, 1976, *Applied Sampling*, New York: Academic Press.

ANNEX E
PEOPLE SEEN

as

ANNEX E

PEOPLE SEEN

ABA/SMED Management

Nabil Ahmed El Shamy, Executive Director

Yousri Hammouda, Operations Manager

Metwali Saleh Youssef, Financial and Administrative Manager Florette Makram, MIS Department

ABA/SMED Extension Workers

Abdel-Raouf Mohamed El-Gazar

Abdel-Qader Abdel-Hamid

Abdu Salem Abdu Seif

Adel Mohamed Mohamed

Ahmed Mahmud Mohamed

Ahmed El-Ghandour

Ahmed Arafa

Ahmed Mohamed Hassan

Ahmed Gabr

Ali Hassan Ali

Asam Abdel-Mohsen Hashem

Asam-El-Diin Issaid

Bassem Yacuub

Gabr Mohamed Gad

Gamal Hafez Younis

Hassan Abdel-Hamid Nuur

Hassan Abdel-Moneim

Hesham Gaafar Ahmed

Hosni Abdel-Aziz

Ibrahim Hagag Abdel-Rahman

Ibrahim Ali

Khaled Mohamed Ahmed Ibrahim

Khamiis Khasem

Magdi Mostafa

Magid Mohamed El-Gharib

Mahmud Shaben

Mahmud Omar

Mahmud Dessouqi

Mahmud Redda

Mohamed Ahmed Fawzi

Mohamed Abdel-Sabour

Mohamed Ahmed Essayed
Mostafa Ahmed Hassan
Osama Mohamed Sayyed
Osama Fathi Ibrahim
Sameh Mohamed Said
Sameh Amin
Sami Abdel-Mabud Khalil
Sherif El-Qayaas
Tarek Abdel-Aziz
Tarek Shehaata
Tarek Mohamed Sami
Tarek Ashour
Tarek Emad-El-Diin
Wael Abdel-Fattah
Walid Abdel-Fattah Mohamed
Yasser Mohamed Morsi
Yasser Mohamed Tawfiq
Yasser Mohamed Shaaban
Yousri Anwar
Yousri Ramadan
Yousri Sayed El-Gabaali

Banks

Salah Omar, General Manager, Alexandria Region Branches, National Bank for Development
Abdel-Hadi Kharaba, General Manager, Misr Bank
Misbah Khedr Misbah, General Manager, Alexandria Branch, Export Development Bank
Ismail Siam, National Bank for Development, Cairo

National Cooperative Businessmen's Association

Fernando Cruz, NCBA Technical Advisor to ABA

Environmental Quality International

Ezz-el-Diin Sharkawi, EQI Technical Advisor to ABA

Other Agencies

David Davies, Agricultural Cooperative Development International
Fatma Khafagi, UNICEF

4/1

ANNEX F
CASE STUDIES

CASE STUDIES**MOHAMED ABDEL SALAM SHOHDA**

Mohamed Abdel Salam Shohda manufactures specialized refrigerators for primarily commercial customers. He learned this trade in a workshop like that of his father, a Daumiati who migrated to Alexandria and opened a workshop. His grandfather owned a carpentry workshop in Daumiat. Mohamed established his own shop in 1961, when he was 20 years old.

Mohamed's business operates as the organizational center for production. He receives orders, and then subcontracts most of the work to other shops, beginning with the carpentry of the body of the refrigerator. The final steps in the assembly take place in his workshop. His capacity has been limited by the fact that he had to pay the external workshops immediately but received his payments from customers in arrears.

The loans Mohamed has received have enabled him to expand his operations by 100 percent, through two mechanisms. First, he has been able to take on more of the conventional production on order because his working capital is greater. Second, he has been able to produce items that are in high demand prior to order, thus catching considerable trade from the immediate-demand customers. The growth in production has made it possible to get reductions in raw materials costs of 10-15 percent as well.

Mohamed has consciously built up his workshop on the basis of an overall plan for ensuring the long-term security of his family. Thus while the increased income from his business has resulted in a better standard of living for his household, he has kept a careful check on expenditures. He is planning to open a full production line workshop for his refrigerators in Amriyya, because his two sons are graduating from university and will go to work with him. Once they have been taken into the business, he can be sure that his own death would not terminate the support he gives for his household. He does not have enough money to pay the full cost of establishing such a workshop, and intends to use his credit record from ABA (six loans for a total of LE 60,000) to help him secure a bank loan for establishing the new workshop.

MAHMUD MOHAMED ABDEL-AZIZ EL KHASHAB

Mahmud makes high-quality copper and brass chandeliers, lanterns, and occasional tables in a shop on a main street in Moharem Bey. He is 54 years old and supports his wife and four children. He has 12 years of education, and entered this industry as an apprentice in the workshop of a relative. He worked in his relative's workshop from age 18 until 1983, when he opened his own workshop, paying all costs from his savings. He first rented a room opening onto the street, and later on the room behind it. Today the front room serves as a retail shop, the inner room as a workshop. Every step in the production process is now contained within his workshop with the exception of pouring of some of the forms, which is contracted out to a specialist (*sibbak*). He has four full-time employees, compared with two prior to the loans, and his two sons work half-time in the shop while they go to school.

Formerly all of Mahmud's products were sold to retail shops which that the quantities they needed, paying 50 percent in advance and the remainder on delivery. He entered the program to obtain working capital that would allow him to preproduce goods for sale in his retail shop. He was then paying for raw materials in cash, but the loans have allowed him to take larger quantities, thus reducing the unit price. He has now run into problems with the taxation department, and is having to pay installments to them, which meant using his fourth loan to pay off his taxes. He plans continued expansion of production, and will take further loans.

Everything produced for the retail shops continues to be sold on the same arrangement as before, although the shops are beginning to pay in arrears. Mahmud has six regular purchasers, which are retail shops, and much walk-in trade.

ABDEL REZAK KHALIFA AHMED

Abdel Rezak is a tailor aged 54. He has a workshop on an inner street in Moharem Bey. His father was a foreman at the harbor, and spent the family's income on women, so that the family was plunged into poverty at his death. Abdel Rezak went to work at age 7 as an apprentice to an Italian tailor in the Manshia. By the time he was 14 he knew enough about tailoring to open a business of his own in his house, carrying out alterations for customers. At 19 he had enough money to open his own workshop in Kom El Dikka. During this period he worked mornings for a large clothing factory and afternoons and evenings in his own workshop. In 1969 he opened a workshop in Moharem Bey, moving his family into an upper floor of the same building.

Abdel Rezak's system of production is one dependent on orders from individual clients, with the clients providing the fabric. He is near a large marketplace, and for many years he was the prestigious tailor in the area. Rich merchants sent him their sons for all of their suits during the boom years, and he lived handsomely. He said, and neighbors confirm, that he was prosperous to the extent that he was a main source of loans for other workshops in the area.

Until a few years ago, Abdel Rezak had about 100 regular clients for his work. At that time, the quality of his work was much superior to that available off the rack, because he does much of his work by hand and his finishing was excellent. However, many new clothing factories have been opened, so that ready-to-wear garments of good quality are readily available. His current clientele therefore consists of people who are either fat and very short or thin and very tall, and, under current economic conditions; even these people buy less than before.

When his clientele shrank sharply, he tried to restore his income by first buying goods in the marketplace and taking them to Libya for sale. This was successful initially, but with the decline in value of the Libyan Dinar, there was little return on investment. He then sought a loan from the program to buy fabric so that customers could buy both the tailoring and its materials from him. He bought a large lot of high-quality fabric for this purpose, but has not succeeded in attracting customers thereby. Then with a second loan he tried opening a barbershop, although he has no skills as a barber.

Abdel Rezak is in a state of extreme stress. He was interviewed the day before a loan payment was due, and he had no money at all. He hates being in debt, and even more being unable to pay. He said, "I gave up my profession for something less [barbering] so that my kids could live. It harms my personality. For me, it's a disaster in my own eyes that I can't pay tomorrow's payment. I used to loan to all but now I can't pay even my own debts."

He showed the titles on pieces of property he owns and that he has put up for sale to pay off the ABA loan. He said that this property will solve his immediate problem, though he was having to look for a means to borrow against it because it couldn't be sold in time for the loan payment and he couldn't bear the humiliation of being late. However, this property is his pension money, because he will not be able to work forever and as a private sector worker he has no regular pension. Now he feels that he will sell off his only security for his old age and will never be able to get it back.

Abdel Rezak is also experiencing severe problems with his family as a result of his depressed economic circumstances. He says there is no possibility of eating meat any more, and that his wife is getting more and more upset about the amount of money he can spare for household expenses. His son was raised on the expectation of middle-class consumer goods and continues to press him for money. He doesn't blame them, but he feels squeezed.

Abdel Rezak is bitter about the ABA program, saying "You put us [workshop owners] in court with your loans!" Still, if he could get a loan with a grace period, he would think about taking another load of goods to Libya. He also feels it is most unfair that ABA doesn't give a grace period, considering that they have the right to take his workshop or put him in prison if he doesn't pay.

SAMOEL GAD MORSI

Samoel is 37. He is short and physically deformed. He went to school for four years and is from a seven-person family. His father was a plumber. When he was 14, they decided to look into his problem, because he could not easily work for someone else because of his handicap. Children would laugh at him. They thought the best thing would be to make him a project inside the house. His father bought him two sewing machines and brought the workers into the house. They make underwear for children for the *balladi* market. In the beginning Samoel knew nothing about this business. He began to work with his workers, taking the steps one by one. His father had nothing to do with the business.

Eventually he learned all the steps in sewing. That was in 1983. The first machines were old and inexpensive. He began to make good money, and started to modernize the machinery. Now he has six new machines. He began to experience difficulty in stretching his working capital to compensate for growing payment periods of the merchants, which meant he had to stop production until paid. When he heard about the ABA program, he started to take loans, and has had five.

Samoel renovated his workshop and brought machines into the dwelling part of his family. Samoel now has three workers. When there is extra work, he hires three or four more. His three workers are girls aged 15. He cuts the fabric and repairs the machinery himself. The advantage of the loan was that he was kept working, because his money was otherwise committed and his raw materials require a lot of money. He reported that when he gets raw materials for LE 7,000, he has to pay out an additional LE 1,000 for dying and washing, and so on. His profit margin isn't big, so he needs much raw material. His finishing is not good — the main thing is the sewing.

SAYYED YUNIS LUTFI

Sayyed is 41 years old, and married with three daughters. He is illiterate. He used to drive a taxi while his wife stayed home with the children, but three years ago he was in an accident that totally destroyed the vehicle. He was injured, and although he has recovered he is psychologically unable to drive. This was a crisis for the family, because this was their only source of support. The family had to find a solution.

Sayyed's wife had learned sewing from her mother, but hadn't used it for working in any serious way. She would sew for herself and her neighbors and friends. She started thinking about their problem, and she decided to do slipcovers and curtains. She started to get her husband to work with her, and she taught him the work. They divide the work. She goes to the houses to measure, the husband sews, and she returns to install the slipcovers and curtains.

Before the loan, the customer would bring the fabric and they would take only the price of work. When she took money in her husband's name from ABA, she started to get fabric and make agreements with brides-to-be, to take on the entire job of curtains and slipcovers, for a lump sum. The loan helped in this, because she could invest in material. That increased their income and they were readily able to pay the installments.

This expertise coming from her mother a long time ago and essentially unused now belongs also to her husband. When she got more loans, she began to take fabric on installments, which saved a lot of money. She says that the customer who comes and sees her with materials feels more confident, and pays an installment, which he wouldn't have done if he was going to buy fabric. They pay a third of the total cost up front, and the rest immediately upon completion.

They are now thinking of friends of his who have shops and work in pants. He now goes and sits with these friends and works for free to learn tailoring of pants. He is thinking of adding this trade to his current trade. She says that the ABA loan gave them a chance to start that work.

HELMi ALI ELMASRY

Mr. Helmi has been in production of men's underclothing for 48 years, beginning as a workshop apprentice. After seven years in someone else's workshop, he left and began to work on his own, buying raw materials, cutting, and putting them out for sewing in various workshops and marketing them. In 1964 he rented a place and started carrying out the entire production process.

Five years ago he applied for a loan of 50,000 from the National Bank of Egypt, submitting all the necessary documentation. The investigation carried out by the information department discovered a *protesto* (refused bill) in a bank, which caused the bank to reject his application. He reported that he had paid this bill, taking a receipt from the trader to whom he owed the money.

Meanwhile, the bank had sent the bill to the court for redress. When Mr. Helmi discovered this, he contacted the trader and the two of them went to court. The trader testified that he had received payment and provided Mr. Helmi with a receipt. But that was not the end of the case, as the judge insisted on receiving the bill itself, and it could not be found. Thus the bank refused to make a loan to Mr. Helmi.

When the extension officer from ABA contacted Mr. Helmi he did not want to take a loan from ABA because the loan size was too small for his needs. However, after several visits he took a loan, on the agreement that loan size would increase over time. Mr. Helmi then took a loan for LE 5,000. He has consistently paid on time, and has had five loans, the largest of which is LE 14,000.

SABER SULIMAN ALI

Saber Suliman Ali has an upholstery shop in the Manshia, as does his older brother Gaber. Saber is 27 years old, and recently married. He has a commercial high school certificate. His grandfather was a laborer at a public sector factory, as was his father. His uncle is an upholsterer. Saber went to work as an apprentice in the shop of his uncle when he was eight years old, working in the afternoons after school. He has never held a job except in upholstery.

In 1987 Saber rented a small workshop space in the Manshia, which he then locked up and left to work abroad, in Libya and Kuwait. He returned in 1990 and opened his own shop near his older brother's shop. His founding capital was LE 3,000, most of it from his own savings and some with help from his brother. He has been unable to license his shop as the governorate is refusing all new workshop applications, but he has applied.

Saber produces living room sets, meaning a sofa and matching chairs. He produces a single style, by which he is known in the market. He orders the wooden frame from a nearby carpenter and then does the upholstery work. Sometimes he purchases a frame from Daumiat merchants, but chiefly he buys from the local source.

Initially, Saber produced one living room set a week with the help of a boy apprentice. His problem was working capital, of which he had very little. He reports that his profit on a living room set is about LE 50 out of a total sales price of LE 1,000. He took a loan of LE 1,000 and subsequently one of LE 1,500 to begin producing a second living room set before being paid for the first, which enabled him to produce two a week and hire two new apprentices.

Saber continues to have a cash flow problem, despite the loans. His shop and his system of production would allow him to double his production if he had more liquidity. However, he works from a complicated system where he orders from the carpenter without paying a deposit, the carpenter paying for the wood itself. He then buys fabric, sponge, cotton, thread, and other materials in just the quantity needed, paying cash but not qualifying for discount for larger purchases (although the required quantity is quite small). He then delivers the living room sets to one of the three shops to which he sells, but does not receive any money until they are sold.

The carpenter ought to be paid within two weeks of delivery of the frames, and the shops ought to be able to pay Saber within two weeks of delivery of the set. In principle, these payments are divided in two, one due a week after delivery, the second two weeks after. It doesn't always happen like this, however, so he becomes illiquid and this slows down his work.

Sometimes he has to borrow money from his family to bridge the gap, but his family cannot give him much — he in fact contributes to the support of his parents. It helps when individual clients come in to order furniture, because in this case he gets 50 percent payment in advance and need not pay the carpenter for the new work until he is finished, by which time he may have received payment from the shops. He also accepts orders for curtains when his sewing machine is idle.

Saber says that although his shop has doubled its production and the rates of profit are the same as before the loan, he has no more personal income than before because he has loan payments to make. It appears that he actually does have more, however, because he is now able to support two households rather than one. He is willing to give information about rates of compensation to his workers, but says that providing information on details of accounts is impossible because he doesn't calculate them himself.

He comments that in the beginning he did do careful figuring of costs and prices, but that this had the effect of earning him no income (it made the profit "fly away"), and that he makes more now that he doesn't do these calculations. According to his statements, he now earns personally about LE 400/month, excluding side items such as curtains. However, his loan payment takes half of this.

For fabric, the most important cost item in upholstery, Saber pays approximately LE 15 because he is in the trade. A consumer would be charged LE 18 for the same fabric. If he were able to buy a whole bolt, he would have a 3.5 percent discount over the LE 15 price.

Two of the workers in Saber's shop are 15-year-old apprentices who earn LE 15/week, one of them his youngest brother. He has one upholsterer who is 18, who earns LE 50 a week.

MOHAMED TOLBA ABDEL AZIM

Mohamed Tolba is the son of a junk dealer who sat on the sidewalk on Safia Zaghloul Street in downtown Alexandria. He went out to work at the age of 14, and worked in various trades, including chandelier assembly. He married at about age 20, and took up residence in the building in front of which his father sat. For about 15 years he worked assembling chandeliers from his house, selling them in a space in the entrance of the building. Several years ago he also rented a small room on the ground floor that he converted into a chandelier workshop.

He has taken three loans for a total of LE 2,450. In the beginning, the purpose of the loans was to increase his working capital so that he could produce more chandeliers for sale. However, his shop was robbed during the course of the second loan, and he lost all his production and his equipment when he was nearing the end of the loan period.

Two ABA extension workers who knew his circumstances paid off his final installment so that he could take another loan and get back into business. He was robbed on the 19th of the month and by the 24th he had the new loan funds. However, the new loan was only LE 1,250, which was not enough to permit him to return to making chandeliers, so he used the money to buy women's lingerie to exhibit for sale in his little retail shop. He was once again robbed, all his display cases broken, and his goods stolen.

Now he has a few goods, all that he could afford to buy with the money available at the time of the robbery, but they are bits and pieces of stock and it is hard for him to sell because he doesn't have a range of sizes in any item. He tends the shop, with very little result, and to eke out an income he repairs irons and other household appliances for customers who know of his skill. Mohamed Tolba has eight dependents.

He cannot pay his children's expenses in school and believes that he will not be able to get another loan because he has been late on payments on this one. In fact, he probably will not be able to complete the payments, whether late or not. He does not expect to find a means of paying his children's school fees in time for them to enter their examinations, in which case they will have to leave school.

ISMAIL ABDEL AZIZ

Ismail Abdel-Aziz is a shoemaker with a workshop in downtown Alexandria. His grandfather was a mason, his father a furniture carpenter. He entered his trade at the age of 12 as an apprentice and is now 37. He established his own workshop at the age of 26. He produces shoes for shops. Each season he produces models and shows them to the shops, which order the amount they want. He produces them and delivers them. He regularly delivers shoes to six shoestores, but also produces for individual customers at the same time (though the shops account for 99 percent of his business).

The leathergoods business operates on "paper." The workshop owner purchases substantial lots of leather on the basis of *combialaat*, or promissory notes in the form of checks (bank checks but in the absence of a related bank account). He goes to the leather goods dealer and says how much leather he wants. He pays 10 percent advance, and writes notes to be cashed over the period of a year and takes his leather. He returns as soon as he needs more leather and writes another. The leather merchant spends this *combiala* to purchase his own supplies elsewhere in the system, endorsing the note and passing it along to his own supplier.

This paper moves around the system as if cash, though it appears not to go outside trade-related activities, until it reaches its due date. At that point it can be cashed with a large merchant (the "capitalist") if the current holder needs liquid money. The person holding the note on the due date goes to the bank on which the note is written and asks for the amount shown on the face. Neither he nor the writer need have an account at the bank. The original writer is meant to have come to the bank just before the time of payment and given the bank the amount due. If he does not, the holder must go to the endorser just before himself and collect, who must in turn go to the one before him, until the original writer is caught up with. If he does not pay, then legal action can be taken by the first endorser. Notes were in the shop with as many as 12 signatories.

Paper moves through the system on the basis of reputation. Before accepting a note, either as first or later in the list, the receiver checks with his friends in the industry to see if the person is reliable. Word goes out very fast about faulty *combiala* writers, including endorsers. This system costs the purchaser of leather 50 percent more than paying in cash. However, he sells his end products on installments, and would therefore suffer a great decrease in production if he couldn't also buy the raw materials on credit. This system applies only to workshops — factories pay cash and are paid in cash.

The loans to this beneficiary total LE 9,000, which is by no means adequate for him to escape from the credit buying system. He would like to have enough of a loan to establish a factory, to avoid the raw materials purchases of this type, but could only do it with very large volume. Asked how he manages his accounts, given the large quantity of paper going back and forth, he said that he keeps the notes that he holds from shops in one envelope and the ones he owes in another, and from time to time he shoos everyone out of his shop and smokes a waterpipe and compares the size of the two envelopes. If he's owed more than he owes, he concludes that he is staying alive.

This shop had four workers before the loans and now has only one. The one is underemployed — he is paid by piece and was making LE 400 before the market dropped sharply but now makes only LE 250. According to the owner, the problem is not just one of hard economic times but also of entry of many competitors in the market.

This man reported that he was supporting four persons — himself, his wife, and his two daughters. His sister, who was sitting in the shop at the time, said this was untrue — her husband had died leaving her responsible for five children, and he was the sole support of that family as well.

MOKHTAR MOHAMED EL ATRIIS

Mokhtar Mohamed El Atriis is a carpenter who produces good-quality, expensive furniture on order. He has limited tools but a high level of skill, and takes on orders for side items like arched window frames when the demand for furniture is too low, as at present. He has had three years of formal education and 48 years of experience in carpentry, in a trade he started as an apprentice. His father and grandfather were grocers.

Mokhtar opened his own workshop in 1962, but closed it from 1967-1970, traveling to Lebanon to work as a furniture carpenter there. His clients included well-known Lebanese personalities. This enabled him to completely equip his shop without support from elsewhere. Most of his clients were foreigners living in Alexandria, particularly Greeks, and he was accustomed to receiving substantial downpayments on orders.

As the foreign community dwindled, his customers were more and more Alexandrians who paid less as a down payment, not covering the price of his raw materials. This initially posed no problem for him, as he had enough working capital to make up the difference, but then he developed some "family problems" that drained away his capital, and he fell into the hands of the wood merchants.

Mokhtar is not interested in producing for sale to the market, saying that this is not an appropriate channel for the products of highly skilled carpenters such as himself but rather for those with limited abilities. He continues to work with a fixed pool of customers who know his work and want him in particular to produce their furniture. However, the current economic circumstances have meant that he has needed to reduce his margin, and he now spends LE 3,500 in costs and takes LE 50 profit on a standard bedroom.

Mokhtar's wood is cut in an outside shop, but the remainder of the work he does himself, including the lustering of the finished product. He said that most other carpenters send their products out for finishing, or hire a specialist to come in as needed, but he learned in Beirut to do the entire process himself to control quality. He has no skilled workers.

Mokhtar is now working at a high capacity and could not expect to expand much without changing his method of production and his premises. However, his son is near graduation from university and will then come to work with him. He has therefore planned to establish a new workshop that can house both of them, and to expand the business in this fashion. He will be seeking further loan support for this purpose.

MAHMUD MASAUD MOHAMED

Mahmud took a loan in his name that was actually to support the work of his wife. He is a technical school graduate employed at a public sector company. His income is too small to support his wife and their seven children, although he ekes it out with private lessons to schoolchildren. His wife has always generated some income from sewing. She left school during the primary level, but took a three-year course in sewing at a sewing center and began to sew intermittently for neighbors.

After many years of intermittent sewing, Mahmud's wife decided that she would have to go to work full-time in order that their family be supported properly. She reached the decision to open her business with the support of her brothers, who are traders in remnants from public sector garment factories. They offered to provide her remnants at no cost. However, although she had a sewing machine, she could not produce commercially without an overlock machine. Mahmud therefore applied for a loan of LE 1000, which allowed his wife to make a down payment on an overlock machine and go to work. This overlock turned out not to be the type she needed, so she put it into storage and made a down payment on another. The second overlock cost LE 6,000.

Mahmud's wife began production at home for the mass *balladi* market with the guidance of her brothers, piecing together remnants to make children's clothing, particularly summer and winter training suits, dresses, and t-shirts. In some cases, materials are provided to her pre-cut for production of training suits.

Mahmud's wife sells through a variety of channels. Her main channel is merchants who place orders for batches of specific items and then pick them up in the morning for sending out on handcarts for sale in low-income neighborhoods. Payment is made in the evening for these goods. A Libyan merchant also orders goods for sale in Libya. These two types of channels are only viable as long as she can purchase fabric by weight, not meter, and produce in volume. When business is slow, as between seasons, Mahmud's wife takes orders from neighbors. These are the only customers who supply cloth.

Mahmud's wife does not contemplate opening a workshop; she has too many children to care for to be able to work in separate premises. She is, however, intending to expand her production by whatever means possible. A high priority is increasing the portion of the materials provided by her brothers that she pays for, although they are not pressing her for payment.

Mahmud's wife was not able to calculate her costs, because she works with bulk remnants to produce items whose material use she understands better in meters. Thus far this has not been important, because she has not paid for most of her materials and the prices for the finished goods are set by the market. She also has had no taxes to pay, nor any other expenses except electricity and her machinery payments.

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