

## Can micro credit schemes be introduced by formal banking sector?

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**Abstract.** The paper explains the supply side dynamics of micro credit that is about the sustainability of Micro Finance Institutions. The study suggests that formal banking sector framework should be applied to micro credit schemes to analyse their efficiency. This may help us provide a methodology unconventional to micro credit literature that can provide guidelines for successful micro credit endeavors by formal financial institutions.

**Keywords.** Micro credit, Banking sector, Sustainability.

**JEL.** G20, G21, G24.

### 1. Introduction

**O**ver the last decade micro- financing as poverty alleviation measure has really come to age and is supposed to be one of the cheap and painless -for governments- cure for poverty...(Morduch, 1999).

Both the extent of income-generating opportunities and ability to respond to such opportunities are determined to a great degree by the access of affordable financial services. Increasing the access to poor households to micro-finance<sup>i</sup> (MF) is therefore being actively pursued internationally and would appear to have become the mantra of today's development orthodoxy. Once almost exclusively the domain of donors and experimental projects, MF has evolved during the last decade with prospects of viability, offering a broader range of services, and significant opportunities for expansion. Development practitioners, policy makers, and multilateral and bilateral lenders, recognize that providing efficient MF services is important for variety of reasons. Improved access to MF services can enable the poor to smoothen their consumption, manage their risks better, build their assets, develop their micro-enterprises, enhance their income earning capacity, and enjoy an improved quality of life.

Micro enterprise lending, and micro enterprise development were first introduced in United States. While poverty is a curse, poor economic performance is slavery. Poverty yields individual human indignity, and economic decline causes national misery. Therefore, it is no wonder that many great philosophers, economists and social activists have been pressing for the alleviation of poverty and acceleration of economic growth. However, the quality of life and economic growth have circular cause and effect relationship with human dignity, education, healthy living, skills and business opportunities. Unfortunately, one third of the world's population is still suffering from hunger, draught and lack of basic necessities of life.

The governments in the third world are waging a war against poverty through the micro-credit scheme. Micro-finance program is being used as an instrument for poverty alleviation, employment generation and economic revival in this country like many other parts of the world. The micro-credit movement is revolutionizing international development, and the governments world over are doing there best to

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help the poor with micro-credit facilities. They have allowed setting-up of private investment banks to disburse small loans for alleviating poverty. Micro-credit can stimulate the economy by granting credit facilities to the help less and needy.

Globalization and free market system has provided the upper hand to the developed countries. At the same time, natural tendencies in the free market system have brought about an enormous concentration economic gains in very few hands. Despite the great social and technological strides of the past few decades, the absolute number of poor people on the globe has never been greater. More than a billion people live on a less than 1\$ a day. Every day, one hundred thousand people enter the global labor force, but only one in five is expected to find formal employment. The persistence of mass unemployment and poverty remains the most pressing problems in the world. Even as we witness the fall of authoritarian regimes and the burgeoning democracy throughout the globe, one third of the world's population has yet to attain the most rudimentary levels of economic well being and security in their lives.

Micro-credit is essential for the alleviation of poverty and revival of economic growth in part through promoting human settlements, education, agriculture, skill development, small business, and healthy living. A key ingredient of poverty is human dignity. Micro-credit program ensures human dignity through pledge free loans, simple procedures, new social contract, right to counseling, fair earning, and is devoid of bureaucratization. In the current global economic climate, micro-credit is poverty alleviation tool.

Micro-credit is the extension of small loans to groups of poor people; especially women, for the purpose of creating self-employment opportunities. Poverty demeans the lives of the poor, not only through material deprivation but also social isolation, as it creates the feelings of helplessness and humiliation among the poor, and micro-finance can change their fate. Micro-credit is a fast growing movement through out the world for poverty alleviation and economic revival. Grameen Bank in Bangladesh, ACCION International in Latin America and many global NGOs have been playing very important roles in the economic revival and poverty alleviation. More than a thousand organizations, in more than sixty countries around the world, are working for micro-credit programs, and 50 million people world wide are toady receiving the benefits of micro-credit loans. Grameen Bank has lent more than \$2billion, ACCION International, \$485 million to 310,000 to low-income entrepreneurs in 14 countries.

Key global institutions and actors have adopted micro-credit as a targeted strategy for poverty reduction at grass roots level. These institutions and actors include the world Bank, the International Monetary Fund (IMF), Regional Development Banks, Bi-lateral Development Agencies and a broad spectrum of the NGO community. Micro-credit has also been recommended by the International Labour Organization (ILO), as a strategy to minimize income insecurity. Micro-credit is now at work in 43 countries.

Despite all this, about 95 percent of some 180 million poor households in the Asia and Pacific Region (the Region) still have little access to affordable institutional MF services. Significant resources are required to meet the potential demand. Thus there is a need to build MF systems that can grow and provide MF services on permanent basis to an increasing number of poor through domestic resource mobilization.

## **2. Relevant issues in the sustainability of micro credit schemes**

As said above, there is no doubt about the important contribution of MF in poverty alleviation. Today some leading MFIs e.g., Grameen Bank, have created financial methodologies that serve increasing numbers of poor and generate repayment rates that compare favorably with the loan performance of many traditional commercial banks. By using these methodologies, MFIs have achieved increasing levels of sustainability, even to the point of outright profits without subsidies (Hulme, 1999).<sup>#</sup> Nevertheless, most MFIs, especially the NGOs involved,

have encountered serious problems of sustainability, suggesting there may be serious flaws in the finance approach that need to be acknowledged. These flaws appear to emerge from organizational design -that is, property rights and governance structures, features that are generally strengths in Direct Financial Institutes (DFIs) i.e., traditional commercial banks. At the same time, most of the MFIs usually are not responding to the wide spread demand for the deposit services from their clients, demand effectively serviced by DFIs<sup>iii</sup>. Thus majority of MFIs world over, especially the NGOs involved, are still dependent upon the loans or grants from outside sources in order to finance the poor in a manner, which is far from sustainable and efficient (Rhyne, 1998).<sup>iv</sup>

The objective of this paper is to identify the financial methodology/ies, which enable an MFI to sustain its functions. However, here I intend to follow an unconventional approach which is not yet being employed in Micro-finance Literature: Since MFIs are after all financial institutes<sup>v</sup>, with a primary aim of providing credit to a specific segment of population, which are generally involuntary, excluded by the direct financial institutes e.g. commercial banks, because they cannot fulfill the eligibility pre-requisites for credit<sup>vi</sup> - one can start to evaluate micro credit schemes through the determinants of efficiency like impact of size, international variables, ownership, control and governance on profit, cost, allocative, technical, pure technical and scale efficiency measures. Since such respective efficiency measures give us vital information about the structure of different MFIs with similar financial methodologies, one can identify what are the comparative traits of sustainable and unsustainable MFIs. The common traits are as follows:

### *2.1. Policy environment*

Despite general improvement in the policy environment for financial sector programs, the policy environment for MF in many countries remains unfavorable for sustainable growth in MF operations. For example, in countries such as Veit Nam and the people's Republic of China, ceilings on interest rates limit the ability of MFIs to expand and diversify. Relevant policy reforms for MF include interest rate reforms for micro credit and savings, creating an environment sufficiently flexible to accommodate a wide array of MF service providers to meet the diverse demand, and redefining the role of state and central banks in MF development to facilitate participation of private sector financial institutions (Goodwin-Groen, 2000).

### *2.2. Financial infrastructure:*

Inadequate financial infrastructure, (legal, information, and supervision and regulation) is another major problem. Most governments have focused on creating institutions or special programs to disburse funds to the poor with little attention to building financial infrastructure that supports, strengthens, and ensures their sustainability. Thus MFIs can develop sustainable commercial services on a permanent basis, and expand their scope of operations and outreach, only if they operate within an appropriate financial infrastructure such as information systems and training facilities. The legal framework and supervision and regulation of MFIs, including self regulation and performance standards of MFIs need to set up to facilitate sound growth and improve the capacity of MFIs to leverage funds in the market and provide competition (Matin *et al.*, 1999).

### *2.3. Financial viability:*

Inadequate emphasis on financial viability is the most serious problem of MFIs especially in the South Asian Region. This prevails among many NGOs, government directed microcredit programs, state owned banks, and co-operatives providing MF services. As a result only few MFIs are sustainable; most are not moving toward sustainability and reducing subsidy dependence. Whereas, viability is critical for expanding the outreach to achieve the primary objective of poverty

reduction. The institutional development support for viability need to encompass (i) ownership and governance, (ii) diversified products and services, (iii) management information systems and accounting policies and practices, (iv) management of portfolio quality and growth, (v) systems and procedures and financial technology for reducing transactional costs, and (iv) training facilities (McGuire, 1998).

### *2.4. Pro-poor innovations:*

Those in resource-poor and low-population density areas, the poorest of the poor, and ethnic minorities often tend to be excluded by financial institutions due to risk-return considerations, although the social returns to reaching these clients may be high. Therefore, it is important to support MFIs and other financial institutions to expand the services to these categories through innovative programs and development of financial technology that contribute to breaking these barriers through pilot projects and other measures that aim at establishing linkages between formal financial institutions and informal service providers (Qureshi *et al.*, 1996; Bennet & Cuevas, 1996).

### *2.5. Social intermediation:*

The low level of social development, a distinctive characteristic of the poor in the Region, is another major constraint. This is particularly true with respect to poorest, women in poor households, poor in resource-poor and remote areas, and ethnic minorities. Investment in social intermediation is necessary to increase the capacity of the poor to access and productively use MF services. Such investments, among other things, should support; (i) awareness building program on a broad range of MF services; (ii) information dissemination on service providers; (iii) basic literacy, numeracy, and skills training for women, ethnic minorities, and other disadvantaged groups; and (iv) social mobilization for formation of community-based organizations and solidarity groups to actively participate in MF markets (see for example Christen, 1997; Hulme & Mosley, 1996; Otero & Elisabeth, 1994).

### *2.6. Commercial banks in MF*

Many commercial banks in developing countries are beginning to examine the micro-finance market. Stiff banking competition in many countries has forced some to diversify into new markets. Some seek a new public image. Others have heard about the profits of successful micro-enterprise banks in Indonesia and financial NGOs-turned-banks in other countries. During the last five years or so, their exploration of this new market has been facilitated by donor funded loan guarantees, central bank rediscount lines, and specialized technical assistance. Although the initial resources for loans frequently came from donor funded credit programs, commercial banks in time began to draw their own deposit sources for a growing share of their total funds for micro loans (Baydas *et al.*, 1997). While traditional commercial banks and finance companies are beginning to look at ways to service the large number of potential clients for small loans, many microenterprise lending NGOs with heavy case loads have begun to scale up operations by transforming themselves into regulated banks or specialized financial institutions offering micro-deposit facilities as well as micro-loans. The new NGOs-turned-banks and the traditional banks are beginning to converge on a single potentially profitable market but from two sharply contrasting financial worlds (Hulme & Mosley, 1996). NGO and bank operations, however hardly begin to cover the demand for micro-finance services, NGO programs are generally minuscule in each country, and the banking sector is still by and large just entering this market niche, although in some countries banks already are larger providers of loans to micro-entrepreneurs than NGOs (Almeyda, 1996).

### 3. Important questions for research in mainstreaming micro credit

(i) Despite some success stories in MF, why there is still a large number of MFIs far from effective and sustainable?

(ii) Does, among a diversified set of MFIs following different financial methodologies, is it possible to identify one single ideal financial model or *modus operandi* - which if followed will give us sustainability in micro-finance? OR, Is there a financial model for an MFI, which achieves sustainability through minimizing processing costs, increase productivity of the staff and rapidly expand the scale of their micro-enterprise portfolios- that is increase the number of loans?

(iii) Do MFIs need to offer a similar services as a traditional commercial bank in order to gain effectiveness and efficiency? And can a MFI really follow a traditional commercial bank without hampering its primary goal of providing finance to the very poor segments of any population?

(iv) Since commercial banks are, allegedly, the most effective and efficient financial models, which can facilitate supply and demand of finance in any economy on sustainable basis – what is the feasibility of these financial institutions in entering MF industry? In other words can commercial banking provide a financial methodology for the provision of MF at sustainable levels?

### 4. Banking sector research frameworks to analyse micro credit schemes for their sustainability

Since our aim is to get different efficiency measures to find the most efficient and sustainable MFI model, we can primarily follow the finance literature where recently, this practice have extensively been done on the commercial banks, investment banks etc in the banking system (see for example [Isik & Hasan, 2002](#); [Esho, 2001](#); [Sathye, 2001](#); [Rime, 2001](#); [Altunbas, Liu, Molyneux & Seth, 1999](#); [Berger & Young, 1997](#); [Spong \*et al.\*, 1995](#)).

Here we present a brief discussion on what these efficiency measures are and how they can be estimated. Efficiency of a production unit means a comparison between the observed and the optimal values of its outputs and inputs. Measures of efficiency include cost efficiency and X-efficiency. Cost efficiency means that a firm minimizes its expenditure given the services it provides without reducing service quality ([Athanassopolous, 1998](#)). X-efficiency is also called overall efficiency. By overall efficiency we mean the cost of producing observed output if both technical and allocative efficiencies are assumed relative to observed cost ([Forsund, & Sarafolou, 2000](#)). [Berger \*et al.\*, \(1991\)](#) used the term X-efficiency for all technical and allocative efficiencies of individual firms distinguishing from scale and scope efficiencies. Overall efficiency can further be decomposed into technical efficiency and allocative efficiency. Allocative efficiency measurement is the extent to which input choices fail to satisfy the marginal equivalences for cost minimization. Technical efficiency is defined as: a firm is technical efficient if it can produce existing level of output with at least one less unit of input, or with existing inputs it can produce at least one more output. Technical efficiency can further decomposed into scale efficiency and pure technical efficiency. Scale efficiency is defined relatively to the form of the locus of technical efficiency production plans. It is investigated by analysis of the shape of the frontier. Pure technical efficiency can be obtained by dividing the technical efficiency by scale efficiency.

To measure efficiency there are several techniques. The most frequently used techniques to estimate efficiency are 1) free disposal hull (FDH), 2) stochastic frontier approach (SFA), 3) thick frontier approach (TFA), 4) distribution free approach (DFA) and 5) data envelopment analysis (DEA). The DEA and FDH are non-parametric approaches and they put relatively little structure on the specification of the best-practice frontier. The DEA is a linear programming technique where the set of best-practice frontier observations are those for which

no other decision making unit or linear combination of units has as much or more of every output (given inputs) or as little or less of every input (given outputs). The DEA does not require the explicit specification of the form of the underlying production relationship. The FDH is a special case of the DEA model where the points on lines connecting the DEA vertices are not included in the frontier. Because the FDH is interior to the DEA frontier, so FDH gives larger estimates of average efficiency than DEA (Coelli, 1996). These two approaches assume no prior assumption regarding the functional form and they do not require random error.

The other three approaches SFA, TFA, and DFA are parametric approaches. The SFA, which is also called econometric approach, specifies a functional form for the cost, profit, or production relationship among inputs, outputs and environmental factors, and allows for random error. The SFA gives a composed error model where inefficiencies are assumed to follow an asymmetric distribution, while random error follows a symmetric distribution. The logic is that the inefficiencies must have a truncated distribution because inefficiencies cannot be negative. This method makes it difficult to separate inefficiency from random error in composed error framework. The DFA approach also specifies a functional form for the frontier, but separates the inefficiencies from random error in a different way. The DFA assumes that the efficiency of each firm is stable over time, whereas random error tends to average out to zero overtime. The estimate of inefficiency for each firm is determined as the difference between its average residual and the average residual of the firm on the frontier. The thick frontier approach (TFA) specifies a functional form and assumes that deviations from predicted performance values within the highest and lowest performance quartiles of observations represent random error, while deviations in predicted performance between the highest and lowest quartiles represent the inefficiencies. This approach does not impose distributional assumptions on either inefficiency or random error. The TFA provides overall not for individual firms.<sup>vii</sup>

It is not an easy task to determine which technique is better than the others. But by addressing the main limitations of each technique we can see that which method is more appropriate to measure efficiencies in MFIs. There are enough frontier studies of financial institutions to make some comparison of measurement techniques to draw some conclusions (for a review, see Berger & Humphrey, 1997). The established approaches to efficiency measurement differ primarily in how much shape is imposed on the random error and inefficiency. Parametric approaches have the disadvantage relative to nonparametric methods of having to impose more structure on the shape of the frontier by specifying functional form (Berger *et al.*, 1998).

The DEA approach can be more preferred approach because it has advantages over other techniques. According to Schmidt (1985) non-parametric techniques are better than deterministic approach to measure efficiency. Buregr & Humphrey (1997) describe the power of frontier analysis- according to them DEA has two main advantages: 1) It allows individuals with a very little institutional knowledge or experience to select “best practice” firms within a industry, assign numerical efficiency values, broadly identify over use of input and/or output underproduction, and relate these results to issues of government policy or academic research interest. 2) If individuals have sufficient institutional background, frontier analysis allows selecting best practice within complex service operations, a determination not always possible with traditional benchmarking techniques due to lack of a powerful optimizing methodology such as linear programming. DEA identifies the efficient peers for the inefficient financial institutions and objectively determines the productivity improvements. As such, it is a valuable benchmarking tool for management that can become part of a continuous improvement program, Another motivation to use DEA is that it does not require price data. It can easily handle multiple output case. Yet, another motivation is the desire to see how efficiency is related to observable characteristics of the firm. DEA provides evaluation of

individual units instead of group of units or organization. DEA provides both sources and amounts of inefficiency which all of the regression approaches do not identify. There is no statistical inference needed to be determined and attached to DEA weights as needed for regression coefficients. In short DEA might be the best approach to employ in our efficiency analysis for our to be selected MFIs.

### **5. Guidelines for further research on supply side dynamics of micro credit**

It is adamant from the literature that there is a consensus reached among researchers, policy makers, development experts and development agencies on the positive and vital contribution of MF in poverty reduction. Despite the fact that MF literature has gained momentum nearly a decade, or more, ago, the issue of sustainability, which covers the supply side dynamics of MF, is far from solved. The debate is still going on how to get this so good for poor 'MF' sustainable. Despite the immense importance of this issue of sustainability, MF literature has mainly concentrated itself on the demand side and there are not many studies, which have empirically evaluated sustainability dynamics of MF. So in this respect, the paper intends to make a significant contribution in the literature by dealing specifically with the supply side dynamics of micro finance. Here it is important to note that the paper propose to deal with the issue of sustainability in a rather innovative way by measuring cost and profit efficiencies of different MFIs. This is can be done by identifying MFIs with same financial methodologies and putting them in one group. It will create several groups of MFIs with similar financial models. This way one may get the efficiency measures of each group and provides important information about the structure of MFIs and their workings. It will help identifying the most efficient or in other words the most sustainable MFI model. The efficiency approach has been very popularly used in the finance literature to understand the working of banks in banking sector recently, and previously been used extensively in macroeconomic literature on different economic sectors (i.e., manufacturing, agriculture etc).

In short this study intends to be the pioneering one in its own way in dealing with the issue of MF: We, here, try to fill a missing segment in the literature of MF - which has dealt the issue of MF as purely the one of development economics and have ignored the finance connection – by providing an empirical evidence on the workings of financial models adopted by MFIs and their affect on MFI sustainability.

### **6. Conclusions: Future of micro credit by finding ways to finance micro enterprises**

The paper tries to the issue of sustainable microfinance institutions by focusing on the issue of financial methodologies of MFIs. In this section, I would like to add some more dimensions into it by working on the notion that a MFI can not be sustainable or successful if 1) it is just forwarding loans for the sake of loans/demand side dynamics instead of forwarding it to more efficient businesses no matter how small they are 2) They are exploiting the information constraints faced by the donors or government. On the contrary efficient micro credits may require preferring finance for the businesses which are more profitable in a more liberalized and integrated world and that can solve for the issue of unsuccessful loans.

For example, in 2005, most of the East Asian countries' WTO accession lead to a changed production patterns in their economies because, with accession, the domestic businesses in these economies are exposed to increased international competition. In the absence of any significant protection or subsidies most of the developing economies would focus more on the labor intensive products at which they have comparative advantage over developed countries. However they might get into more technically advanced production patterns<sup>viii</sup> with the passage of time

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because of the more liberalized markets and presumably increased foreign investment, but primarily they will focus on to where the edge lies.

In the liberalized scenario the developing countries compete with each other for the demand of their labor intensive goods in third markets. And with the presence of an Economic Giant like China, the smaller countries like Pakistan has to device policies or policy responses, through which, they can benefit from the liberalized trade with the developed world as well as trading and competing with the developing one. Because, the absence of such policy responses results in a negative impact through a loss of market share in third markets<sup>x</sup> in the products in which a smaller developing country might have comparative advantage as compared to the developed ones but could not exploit the advantage because of the loss of share against another developing country which is relatively more competitive and efficient in similar labour intensive goods. Countries that loose competitiveness due to a lack of any substantial policy response may also see declining returns to capital and the apparent investments by foreign as well as domestic investors may well divert to a third and more competitive economy.

The increased finances especially for micro businesses will have a far reaching effects on the economy as well as the poverty level and employment levels.<sup>x</sup> Presumably those new entrants in labor intensive products shall end up being profitable because of the increased international demand of these products and simultaneously favorable and appropriate government policies, we can well say that it would lead to a sustainable mechanism of financing for small enterprises.

With identification of such labor intensive products in which say Pakistan can take an edge, availability microcredit should also be worked out and preferred in such products. But here the issue of adverse selection<sup>xi</sup> and moral hazard is needed to be addressed.

The information constraints can be exploited at two stages of microcredit. MFIs, who are heavily depending on the government and donors for the funds and who also are working at a very high costs and seem far from sustainable may be the cases of moral hazard or adverse selection. The second case of the exploitation of information constraint can well be the borrowers or micro enterprises, who are getting the money from MFIs, because by doing so they can get away with strictly positive rents whereby work at a high costs that would have been their costs had they been inefficient.



### Notes

<sup>i</sup> Micro Finance is the provision of a range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low income households and their microenterprises, Micro Credit/Finance Institutions (e.g., rural banks, credit unions, cooperatives, village credit societies, NGOs, and charities etc) are defined as institutions whose major business is the provision of MF services.

<sup>ii</sup> For more detail please see Christen, Ryne, Vogel, & McKean (1995)

<sup>iii</sup> Where as the most successful path breaking MFIs i.e., Grameen Bank (Bangladesh), BancoSol (Bolivia) etc, have transformed themselves into regulated financial intermediaries that incorporate deposit services as a growing part of their services

<sup>iv</sup> e.g., Please refer to the discussion about the MFIs working in our sample region (South East Asia) discussed in the Appendix.

<sup>v</sup> In recent years there is an increased interest in the literature of finance to measure determinants of efficiency of financial institutes, especially commercial banks, to identify the institutions which are both cost and profit efficient or to know the characteristics of efficient banking. (see for example Isik & Hasan, 2002; Esho, 2001; Sathye, 2001; Rime, 2001; Altunbas, Liu, Molyneux & Seth, 1999; Berger & Young, 1997; Spong *et al.*, 1995). Such analysis enables the author to also extract the more efficiently sustained banking methodologies. Thus similar analysis on MFIs will give us information about their viable path towards sustainability.

<sup>vi</sup> For example high collateral requirements.

<sup>vii</sup> For further details, see Berger & Humphrey (1997) and Berger *et al.*, (1998).

<sup>viii</sup> WTO accession will increase foreign investment in developing countries as trade liberalisation lowers production costs and the price of capital goods. And increases the rental rates, resulting in rising returns to capital, McKibbin & Tang (2000) and Walmsley, Hertel & Ianchovichina (2002).

<sup>ix</sup> The South East Asian countries lost market share in textiles and apparel in Japan, where China's exports of textiles and apparel are not quota constrained, Ianchovichina & Walmsley (2003).

<sup>x</sup> Since the demand for labor intensive goods will increase in the liberalised scenario- it means that the increased amount of small businesses venturing in the labor intensive products would lead to higher level of employment for unskilled labour. And unskilled labour are mostly less trained or less educated and would have a quite high probability of coming into the poverty line or under the definition of being poor.

<sup>xi</sup> Adverse selection allows the firm to extract a rent from its interaction with government even if its bargaining power is poor. (Laffont & Tirole, 1993).

## Appendix

### Micro finance industry in South East Asia<sup>xi</sup>

#### Bangladesh

It was 1976 that the first Grameen Bank project was established and, in time, demonstrated that lending to the poor could be an economically viable activity. Its experience was followed, in Bangladesh, by the establishment of other major micro finance programs by some of the existing NGOs with large multi-sectoral programs, such as the Bangladesh Rural Advancement Committee (BRAC) and Proshika. The success of these programs led to the rapid replication and multiplication of microfinance throughout Bangladesh both by NGOs with multi-sectoral programs and by specialized NGOs, newly established as MFIs on the Grameen Bank model. However there are no reliable data on the size or outreach of the microfinance sector in Bangladesh. Estimates of the number of NGOs with mf programs in Bangladesh (henceforth referred to as MFIs) range from 500-600 to over a thousand. The Credit and Development (CDF), a Dhaka based MFI networking organization, makes a valiant attempt to keep track. Its statistical booklet provides self reported, and partially verified, info from 524 MFIs. These include all the well-known large MFIs in Bangladesh and it is, therefore, likely that coverage is of the order of 95 percent of NGO mf activity in the country. Interestingly, the CDF statistics show the organizational concentration of MFI activity in Bangladesh: the membership of the top 20 organizations on its list is 83 percent of the total for 524 MFIs and loans outstanding are 88%. The micro finance outreach of CDF's 524 reporting MFIs amounts to an active membership of 8.7 million in June 1999. Add to this 2.4 million members of Grameen Bank, 1.3 million members of five ongoing Bangladesh Rural Development Board (BRDB) projects, and 270,000 members of the Ministry of Youth's Thar project, and the total MF coverage reaches some 12.7 million families. Government of Bangladesh's estimate is that 47 percent of the population, or some 9.9 million families of a total of 126 million people or 21 million families, are poor. If that is correct, micro finance services reach over 80 percent of them.

#### India

Bankers and senior government officers are fond of describing the Government of India's main poverty alleviation program, the Integrated Rural Development Program (IRDP), as the world's largest program for providing micro-loans to poor people. In nearly 20 years, it has resulted in financial assistance of around Rs250 billion to roughly 550 families. In addition over the past 20-25 years, and more rigorously during the 1990s there was advent of significant number of NGOs into MF. Current estimates of the number of NGOs engaged in mobilizing savings and providing micro-loan services to the poor- roughly since 1994- lie in the range of 400-500 organizations. Initially, many of these NGOs were funded by donor support in the form of revolving funds and administrative grants. In recent years, the National Bank for Agriculture and Rural Development (NABARD), the Small Industries Development Bank of India (SIDBI), and microfinance promotion organizations such as Rashtriya Mahila Kosh (RMK, the National Women's fund) have also started taking an active interest in providing bulk loans to MFIs. This has resulted in MFIs becoming intermediaries between the largely public sector development finance institutions and retail borrowers living in rural areas or urban slums. In another model, NABARD has taken to refinancing commercial bank loans to self-help groups (SHGs) in order to facilitate relationships between the banks and poor borrowers.

MFIs in India operate in a situation that is characterized by some 60 million families living below the poverty threshold- perhaps 35 percent of the country's population. Yet, the cumulative outreach by MFIs to such families is no more than 1.5 million (2.5 percent). Thus, even without attempting any estimate of the effective demand for micro finance services among the poor, it seems there is likely to be a huge demand-supply gap for credit as well as a failure to exploit the potential for savings.

#### Pakistan

Approximately 42 percent of the 130.6 million population in Pakistan are affected by poverty. As in many Asian countries, there are not yet many compelling examples of MFIs, be they government organization, NGO or bank, that have developed a product and methodology that has proven to be financially sustainable and capable of reaching significant number of micro entrepreneurs. However there is nonetheless an interesting range of models and products, and the industry is young and still experimenting.

According to the MF Pakistan Report (SEBCON 1999), NGOs working in micro finance can be grouped into three tiers. The top includes the large regional rural support programs (RSPs). The original NGO is the Aga Khan Rural Support Programme (AKRSP) that is located in the Frontier and Northern Areas. The next tier consists of those working in several districts of one province. They include the Orangi Pilot Project (OPP) working in the slums of Karachi and Kashf Foundation based in Lahore. OPP is the only major NGO in Pakistan, which does not require savings by its group

borrowers. Then there are thousands of village level development NGOs with little knowledge of micro finance other than their beneficiaries need access to credit.

There are at least seven banks that are currently providing financial services to micro entrepreneurs in some form. They are Habib Bank, First Women bank, First Investment Bank, Agricultural Development bank of Pakistan as well as the National Bank of Pakistan, Bank of Kyber and Bank of Punjab. Under the State Bank of Pakistan's prudential regulations, banks are able to make uncollateral requirements for micro-entrepreneurs' access to bank finance is not present.

There are two leasing companies in Pakistan that reach the MF market; both are listed on the stock exchange. Orix is larger with a net cash flow from operations of Rs134.5 million at June 1998 and a net profit of Rs. 103.9 million. It also serves medium-size businesses. Network Leasing Corporation is smaller and only focuses on the micro and small market with net cash flow from operations of Rs. 5.9 million at June 1998 and a net profit of Rs. 8.1 million. These companies usually lease lathes, fax machines, sewing machines, and refrigerators to microentrepreneurs, with a value of around Rs, 11k-40k for 3 years. Specifically, as of June 1999, Network Leasing Corporation's average lease size was Rs 181k and 22 percent of the portfolio was leased to women.

### Sri Lanka

Both the commercial banks and Regional Rural Development Banks (RRDBs) have been used as conduits for government poverty alleviation programs involving elements of credit. Thus, the Janasaviya program, which operated from 1989 to 1994, included MF disbursed through the state commercial banks and RRDBs, among other conduits. The Janasaviya Trust Fund (from 1991) and its successor, the National Development Trust Fund (to end-1997), relied heavily on rural branch banking networks for disbursements. Another major government program, Samurdhi (from 1995), relies on credit managed by the two state banks, while the Small Farmers and Landless Credit (SFLC) project (from 1990) employed RRDBs as conduits.

There were 1, 418 Cooperative Rural banks (CBRs), small institutions affiliated to multi-purpose cooperative societies, at the end of 1999. They are effective mobilizers of savings, with more than 5.3 million individual savings accounts (in a population of about 19 million). They held more deposits than RRDBs. CBRs have been an important source of liquidity for People's Bank, the state institution which was their handling bank until 1992.

There are also a number of substantial and well performing NGOs providing MF in Sri Lanka, both on their own account and as agents for government and externally financed programs. These include Sarvodaya Economic Enterprises Development Services (SEEDS) and Janashakthi.

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