The experience of the Grameen Bank of Bangladesh in community development

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This paper examines the elements to understand what the Grameen Bank (GB) of Bangladesh is, and what it does for the poor. Several reasons have been put forward as the main factors that contribute to the impressive performance of the GB. This paper address some of these factors. A theoretical explanation of possible effects exerted by those factors in loan repayment is included in the discussion.

First, this paper presents a general description of the institution and its credit system. Then it analyses group lending as one of the most important features of the GB credit programme that is mentioned in the related literature as being the motor behind a surprisingly high loan recovery rate. A few theoretical models of group lending have been investigated in this paper to explain why, by forming groups, GB has achieved high loan recovery rate that ensures that each member in a group be creditworthy.

Second, a description of GB's lending programme for women is presented because some researchers argue that women, in general, tend to be a better credit risk than men. Therefore, some financial institutions offer more flexibility in granting credit to women than men. The reasons for this widely observed pattern are also analysed here.

Third, as credit by itself has been found to be an insufficient factor to improve poverty conditions, GB devotes a substantial amount of resources to the improvement of social wellbeing of its members. Therefore, this paper gives an explanation of the social programme of GB and its effects on raising rural income, reducing poverty, redistributing income and providing education as well as access to better housing. To some extent, the mixture of such social improvements has enhanced loan repayment at GB.

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Finally, the paper analyses the importance of savings mobilization in rural areas and the effects that increasing financial intermediation has brought about in the monetary policy and the economy in general. Mobilization of savings is a crucial factor in GB's successful performance. The importance attached to savings at GB is what makes it different from other development banks. In addition, GB has taken banking services to communities where those services were unavailable. As banking facilities spread to rural areas, they help popularize money as a means of transactions. It is argued that as banking facilities become readily available, monetary transactions become more attractive than other forms of transactions such as barter. The monetized economy gain in efficiency and the demand for money rises.

1. Grameen Bank model

It is believed at the GB that the main problem of the poor is a lack of access to credit lines despite their productive capacity. While most conventional banks grant credit based on collateral assets, GB give loans without any kind of collateral. GB has been successful in overcoming the problems of informational asymmetry often found in rural financial markets. This bank replaces collateral by peer pressure and social sanctions.

The extremely poor can get small loans at GB if they form groups of five people. Each member of the group receives an individual loan; however, they are mutually responsible for all five credits. The bulk of GB's borrowers are women who constitute the weakest social group among the rural poor. Lending money to women has largely enhanced recoverability for GB's loans.

This bank originated in 1976 as an experiment in a research project of Muhammad Yunus, Professor of Economics at Chittagong University in Bangladesh[1]. The GB was chartered to operate as a national bank in 1983, with 75 branches spread in five districts of the country. Presently, GB has extended its reach to 56 out of 64 districts in Bangladesh. In 1994, GB had in operation 1,045 branches with 10,861 employees and it was spread over 30,000 villages, equivalent to half of the villages in Bangladesh.

As shown in Figures 1 and 2, in 1994 GB had over two million members, 94 per cent of which were women. In 1994, GB lent Taka 15,395.3 (US$385) million and mobilized savings for Taka 12,231.80 (US$306) million (Figures 3 and 4). Women held 90 per cent of the total cumulative disbursement of Taka 46,135.40 (US$1.100) million and the outstanding loan portfolio amounted to Taka 11,308.7 (US$281) million. Between 1985-94, annual membership growth rates averaged 32 per cent, loan disbursement increased at an average rate of 54 per cent per year, and savings grew at an average of 67 per cent per year (see Figure 5).

As a result of a research project, GB is the final product of wide experimentation. The Grameen programme enjoys great flexibility in its implementation. Therefore, if something does not work in practice, it is modified. The legal framework in rural Bangladesh has been adapted according to new social requirements. The GB programme works based on

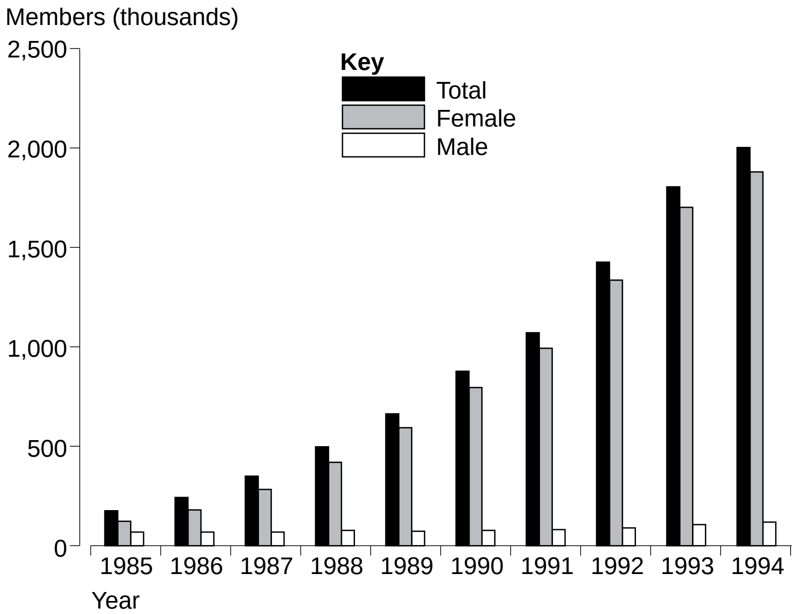

Figure 1.
Grameen Bank membership

consensus. Everyone follows the rules because they collectively set them up. Some authors maintain that the extraordinary growth of GB is due to the charismatic leadership of Dr Yunus and to the decentralized administrative system that it applies for its purpose.

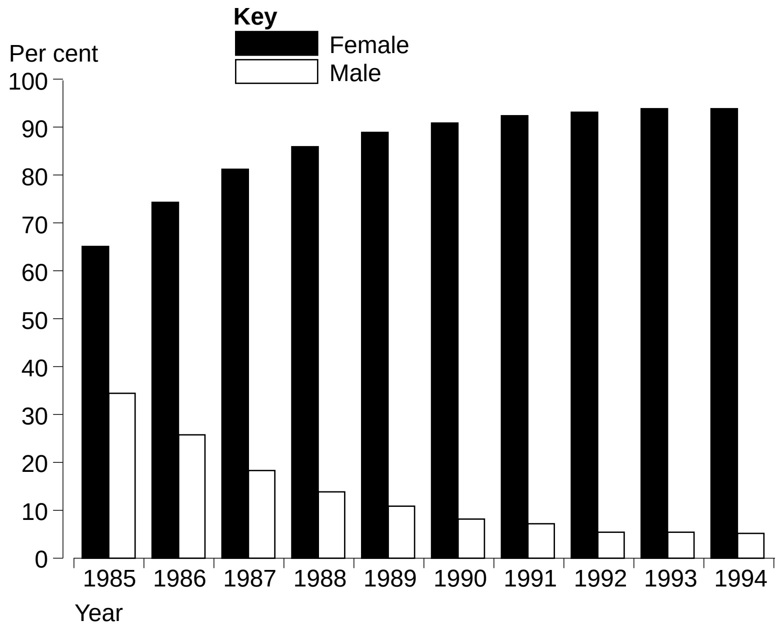

Figure 2.
Distribution of Grameen Bank members

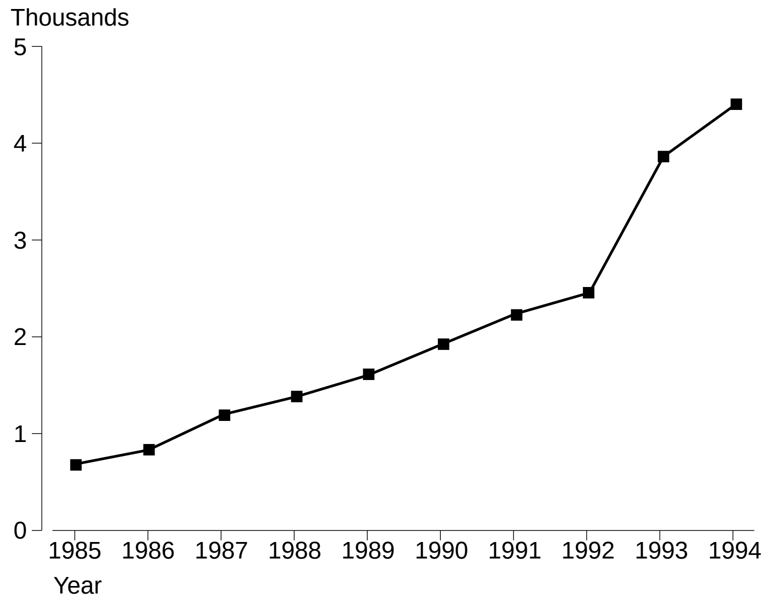

Figure 3.
Grameen Bank's savings per member

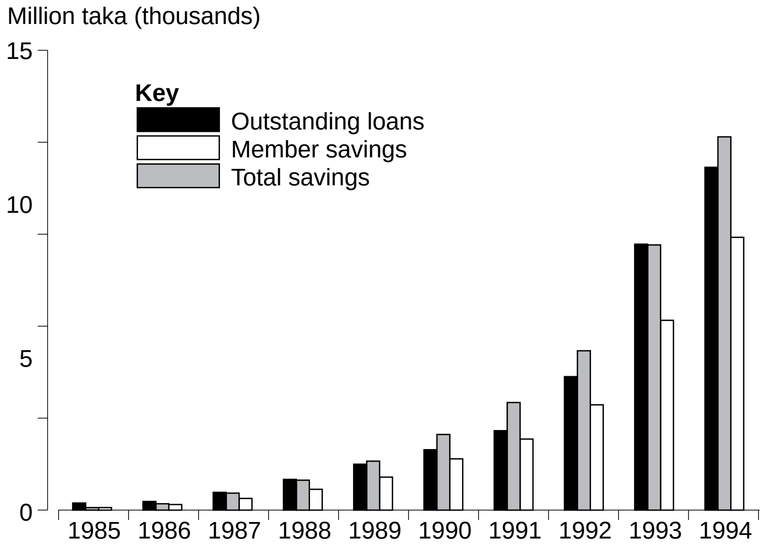

Figure 4.
Outstanding loans and savings at Grameen Bank

1.1. Loan portfolio

As at the end of 1994 the loan portfolio of GB included general loans (70 per cent), collective loans (0.10 per cent), housebuilding loans (29.5 per cent) and technology loans (73 per cent). General loans are provided for a one-year term at an interest rate of 20 per cent. General loans are the centrepiece of GB operations. The general loans are granted for maximum of $125 to group members for investment in income generating activities (see Figure 6).

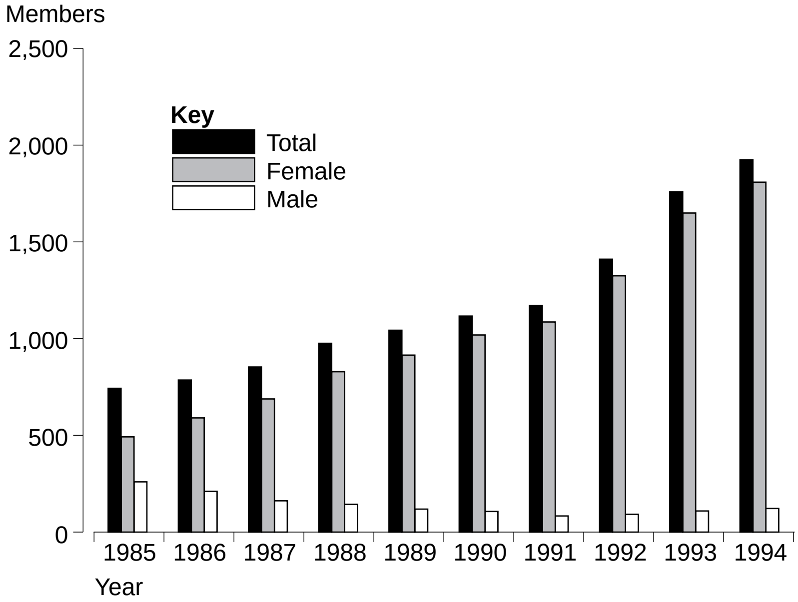

Figure 5.
Grameen Bank members per branch

Collective loans are given to centres which have decided to participate in any joint venture such as public roads or community facilities. This type of loan has not been very successful at GB due to a relatively poor repayment performance. GB introduced housing loans in 1984 as a part of its social development programme. These are longer-term loans requiring weekly repayments over ten years at an interest rate of 8 per cent. GB house-building lending has been increasing since 1984; it represented 29 per cent of the GB loan portfolio in 1994.

Finally, technology loans provide funding for larger projects and involve longer amounts of credit. Technology disbursement was increasing until 1991, when it observed a decreasing trend. In 1994, technology comprised less than 1 per cent of the GB portfolio. The interest rate charged on this type of loan is 9 per cent per year.

1.2. Administrative organization

GB is organized into four levels: the head office, zone offices, area offices and field branches. GB is a highly decentralized organization. Such an autonomy has been a crucial factor in attaining its present success. Branches are independent profit maximizing units, which borrow money from the head office at an interest of 8 per cent and lend it at 20 per cent. Typically, a branch encompasses about 60 centres in an area not greater than $50km^2$. Zone offices and area offices are known as regional offices. There is one area office for about ten to 15 branches. It is at the area level that credit is approved based on branches recommendations. Zone offices are set for supervision only and they

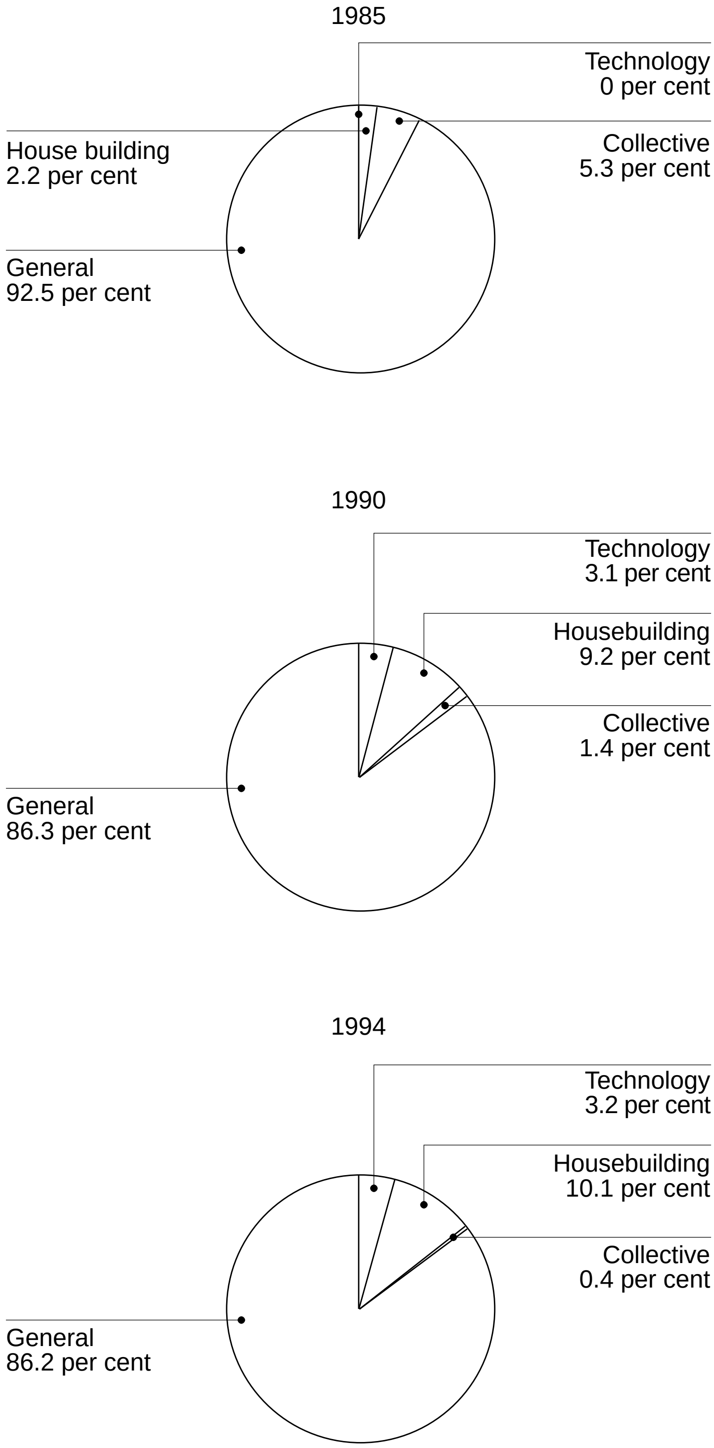

Figure 6.
Cumulative
disbursement of loans

control five to ten area offices. Finally, the head office is located in Dhaka, capital of Bangladesh. It has a total of 400 employees, and is in charge of obtaining loanable funds and providing training to branch workers.

On the other hand, salaries of managers depend on general performance of branches. Consequently, GB's employees are highly motivated to helping the poor. Additionally, employees are thoroughly trained in the bank's operating norms and they are compensated according to productivity and general office performance. As a result, employees and managers do not require supervision. They have personal incentives to work. Through the training process they have been injected with high doses of enthusiasm to help the poor overcome their situation.

Unlike conventional banks where customers visit the bank's branches, the GB approach is to take banking services to centres and villages. In the centre, members receive the funds, pay the due instalments or fill in any bank requirement. As a result, information asymmetries decline, as bank employees are usually well informed about problems and achievements as they arise.

1.3. Financial sources

Since granting credit and social services to the poor is costly, GB relies on international aid. GB receives concessionary loans from international agencies such as IFAD (International Fund for Agricultural Development), NORAD (Royal Norwegian Development Cooperation), SIDA (Swedish International Development Agency), ODA (British Overseas Development Agency) and the Ford Foundation. In addition, it also receives loans at concessionary rates from the central bank of Bangladesh. In the early days from 1983 to 1985, GB borrowed funds in commercial banks for about Taka 40 million per year. In 1994, it borrowed Taka 3,250 million from commercial banks. Presently, most funds come from savings and international agencies. Figure 7 shows the foreign funds as a percentage of total funds mobilized. The external funds in relative terms decreased from 98 per cent of total resources in 1988 to 4 per cent in 1994.

1.4. Financial and economic viability

To be viable, a credit programme must generate sufficient revenues to meet its operating costs. Grameen receives revenues from borrowers' interest payments. Its costs arise from raising loanable funds, organizing and training employees and borrower groups and covering bad debts. To meet a financial efficiency criterion, the programme should charge an interest rate that generates revenue equal to, or greater than, the cost per unit of principal lent. This can be formally stated as

$$r \geq \frac{i + \alpha + p}{1 - p} \tag{1}$$

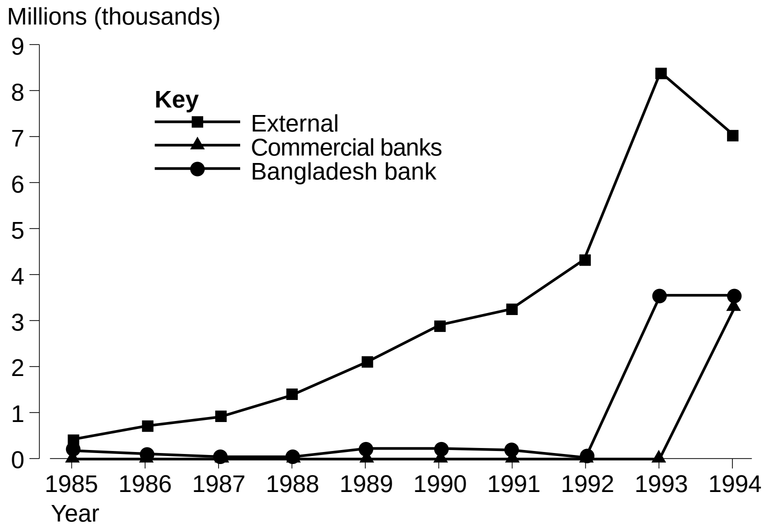

Figure 7. Grameen Bank borrowing

where:

r = interest rate charged per unit of principal;

i = cost of raising resources per unit of principal;

α = expected cost of administering and supervising a loan per unit of principal;

p = expected financial loss per unit of principal, or percentage of principal and interest payments due, that is not recovered.

Based on this formula and using information on operational costs, lending costs and costs of funds, the bank's financial efficiency can be calculated. As long as the interest charged (r) is greater than or equal to i, GB's programme will be financially viable. Table I shows that, except for 1992, GB has registered profits every year since 1983.

However, as stated by Wahid (1994), GB is not yet a viable institution although it claims to be making profits. GB borrows funds in excess of the financial needs of its clients from both national and international sources at highly concessional rates of interest. Reinvesting and often arbitrating with these funds, the GB earns vital interest income. The interest income has enabled the bank to show a year-on-year overall profit, while, in reality, the bank is trading at a loss.

Forming groups and disbursing group-based credit entails high administrative costs. It can be argued, therefore, that GB would not be able to generate enough revenue to cover costs on a longer-term basis. Therefore, GB depends on cheap external credits and donors' resources. Reliance on these funds raises serious questions about GB's sustainability over time.

Table I.
Trends in profit of the Grameen Bank, 1986-1994 (million Taka)

Year	Reported profit	Profit Revised profit	Operating profit	Growth rate of reported profits	Reported profit as percentage of Total income	Asset	Equity
1986	0.36	0.36	3.17	–	0.40	0.04	1.01
1987	0.44	–2.56	7.16	22.22	0.34	0.03	0.77
1988	1.17	–32.66	4.46	165.91	0.59	0.06	2.76
1989	2.26	–57.34	5.94	93.46	0.76	0.08	3.13
1990	10.22	–64.56	13.90	352.21	2.47	0.26	14.19
1991	11.92	–61.47	–17.59	16.63	2.16	0.25	10.42
1992	–5.66	–68.03	–23.45	–141.44	–0.73	–0.08	–3.79
1993	9.56	–77.36	–29.50	269.38	0.72	0.08	6.37
1994	21.74	–54.60	–15.11	127.41	1.08	0.13	10.04

2. Financial intermediation in rural areas

Financial intermediation is crucial for the development of rural villages. If used properly can credit help rural residents increase their income. Likewise, banks and financial intermediaries may be able to recover expenses and make a profit by attracting deposits and granting rural loans.

Several reasons are given in favour of financial intermediation. It is argued that RFMs reduce the cost of exchanging real resources. Financial intermediation also enhance a more efficient resource allocation. Firms and individuals may have different investment and consumption alternatives. Thus, some of them want to save at the time others plan to invest. Banks satisfy both desires. In addition, financial intermediation causes gains in risk management. Rural producers are typically subject to large variations in income and expenditure. Rural production heavily depends on the weather and price fluctuations. For example, expenditures may be heavy at planting periods while income is realized with harvest. Therefore, loans and savings are important and inexpensive ways to manage at least part of households risks. Moreover, financial intermediation may allow a farmer to undertake larger investments. For instance, a loan may permit a rural producer to buy a tractor years before being able to save enough money to buy one with cash. Likewise financial intermediaries can benefit large number of households by accepting their short-term deposits and providing a fewer borrowers with longer-term loans. In fact, savers, borrowers and intermediaries gain from this transformation of term structures that take place through intermediation.

In addition financial intermediaries that deal with borrowers as savers reduce the information asymmetry characteristic of RFMs. By observing the savings patterns of customers, they obtain information about the income and wealth of clients. By that, banks better assess the quality of borrowers and reduce default.

The drawback is that there is a general tendency for governments in less developed countries (LDCs) to interfere in RFMs. Thus, few observers of formal RFMs in LDCs are satisfied with their recent performance. Markets are highly fragmented; they provide little services to rural residents; political interest interferes with RFMs' operations; and official lenders are frequently on the edge of bankruptcy.

RFMs in LDCs do not work like the classic competitive markets. On the contrary, some imperfections are characteristic of rural banks. These imperfections lead to a variety of problems. For example, the available information is imperfect or asymmetric. That is a classic problem of RFMs. Borrowers differ in the likelihood of default. However, it is costly to determine the risk of default of each borrower. This problem is conventionally known as the "screening problem" or sometimes it is called the "adverse selection problem" (see Srinivasan, 1994, p. 15).

Moreover, it is also costly to ensure that borrowers take actions that facilitate repayment. This situation is known in the related literature as the "incentive problem" or "moral hazard problem". This problem turns out to be particularly severe when rural banks lend money at concessionary interest rates. That is the way most governments run credit programmes. If a farmer receives cheap money he will not display enough effort to ensure repayment. For instance, in the presence of high interest rates, borrowers may select investment projects that have higher potential pay-offs but a greater risk. These sort of economic activities (investments) require more effort from the borrower to be successful.

Finally, it is also costly to enforce the credit contracts. This factor gives rise to the "enforcement problem" of rural financial markets. There is very little or no penalty in default cases in rural areas of LDCs. Therefore, seldom are the borrowers expected to be sanctioned for loan delinquency. Often it is found that some rural borrowers may be able but unwilling to repay. In addition, in many LDCs property rights are poorly defined so that actions against collateralized assets are ineffective. Governments of many LDCs often, for political reasons, engage in credit relaxation programmes, which diminish borrowers' incentive to make their projects successful. Therefore, it is not surprising that government-run credit suffers from a tremendous default problem.

The final result is that RFMs have not developed as real and effective capital markets. In the absence of capital markets, individuals turn to moneylenders. The common belief is that moneylenders charge monopoly interest rates, which capture borrowers' returns from credit. To overcome those problems innovative credit policy interventions are required. Some few new financial institutions are now being successful to combat market imperfections. Among such institutions is the Grameen Bank of Bangladesh and some of its replications. For instance, group lending allows the financial institutions to transfer risk and transactions costs to credit recipients. It also permits some banking firms to monitor borrowers with other borrowers. Therefore, financial institutions like the GB have proved that it is possible to develop rural areas through financial intermediation.

2.1. Importance of credit

An effective credit process is the one which allows both borrowers and lenders to be better off. Lenders must generate enough revenue from lending to cover the costs of funds that they mobilize. On the other hand, for the credit process to make sense, borrowers must be able to repay the principal and interest, as well as to generate some profits.

Financial intermediaries produce loans using savings as an input. Like any other input, savings have a price. Therefore, for the financial process to be sustainable, banks have to generate enough revenue to meet savings costs. The rate of interest plays a key role in this process. Interest rate flexibility is crucial to determine the sustainability of credit programmes.

The borrower view. Availability of credit, under certain circumstances, may enable the economic agents to accumulate capital. Small and large firms depend on credit to increase investment in capital assets. Banks play the role of intermediaries between surplus units that consume less than what they earn, and those individuals and firms that need money to generate output. The Baker-Hoping Model describes the relationship between equity capital (wealth) and credit in the following equation (Baker and Hopkins, 1969):

$$\frac{\Delta E}{E} = \left[\frac{D}{E}(r - i) + r\right](1 - c) \qquad (2)$$

where:

D = the amount of the loan;

E = amount of equity capital (the difference between the value of assets and loan);

ΔE = increase in equity capital;

r = rate of return on assets;

i = interest paid on loan;

c = rate of consumption out of income from assets.

From the borrower's point of view and, according to equation (2), as long as the rate of return on assets (r) is higher than the rate of interest of the loan (i), credit will increase the family income. The higher the share of the loan (D), in total capital ($D + E$) the higher will be the growth of income of household. Moreover, provided that marginal propensity to consume out of current income (MPC) is less than one, the loan will increase the net worth of the household[2]. Nonetheless, under normal circumstances, the poor may find it difficult to save in the early stages of this process. Unless the credit contract is set in such a way that the loan and interest is recovered in small instalments over a fairly long period of time, the loan will force some regular compulsory savings of small amounts that would otherwise be consumed under the pressure of poverty. Every member of GB, at the time of joining a group, has the commitment to save one Taka[3] per week in a group fund.

Although the amount of capital required by the poor may be small, it is difficult for them to gather it, given their low levels of personal income. Things become worse as low income farmers, because of a lack of collateral assets, are excluded from formal finance. Thus, they often turn to moneylenders, who exploit a monopoly situation and set a higher interest rate which makes it even more difficult for capital accumulation and savings. However, if they are able to find a bank that lends at market interest rates with no collateral requirements, the farmers may eventually reach an income level that allows for savings. Since 1983, GB has been playing that role for the poorest of the poor in Bangladesh. A recent study by Chowdhury and Khandker (1995) shows that it takes on average about five years for poor GB participants to raise income above the poverty line and eight years for economic graduation (p. 33). Graduation, in Grameen's terminology, means that borrowers stop taking loans because they have accumulated enough resources for self-finance.

The lender view. From the lender's point of view, granting loans is not only costly, but also carries high risk for the lending institutions. Credit risk is the uncertainty associated with a borrower's loan repayment. There is always with a loan an associated probability of default. If the probability of default is d, the expected probability of receiving a payment is $[1 - d]$ (see Flannery, 1985 and also Altman, 1980). Assuming for a moment that no other costs are involved, a profitable loan rate r must compensate the lender for the time value of money and the default risk. If r_f represents the risk-free rate of interest or the T-Bill rate with a zero probability of default ($d = 0$), we have

$$r = \frac{(1 + r_f)}{(1 - d)} - 1. \tag{3}$$

Equation (3) captures the fundamental notion of a risk-return trade-off. The profitable loan contract rate increases with the perception of the borrower's probability of default. The default-risk premium is the difference between the rate of return on a risky loan r and the risk free rate r_f. T-Bills are considered to be free of default. In case of an investment in T-Bills with $d = 0$, there is no chances of default and $r = r_f$. In contrast, when a borrower is certain to default (i.e. $d = 1$), the loan contract rate is undefined. In this case the lender cannot be compensated for the risk. Hence, no rational lender would make such a loan. Nevertheless, with the ability to transfer such a loss to government, or to other types of insurer, these sort of loans are often approved in rural areas. According to equation (3), the interest rate in the market is determined by considering the average quality of the loan portfolio, which creates an externality between borrowers[4]. In fact, bad borrowers inflict an externality on good borrowers by raising the interest. However, lenders may not use interest rates to clear the market; instead they may fix the interest rate, rationing access to credit. In most LDCs the government is the one that establishes interest rates lower than market rate, with many of the consequences mentioned earlier.

2.2. Savings mobilization

Unlike other development banks, GB considers saving mobilization as integral part of the financial process. A compulsory savings requirement is a key feature of GB. GB promotes savings by requiring members to make different kinds of deposits. From the beginning, group members save one Taka per week to form a group fund. This contribution is held as an individual savings account for each member and it is refundable at the member's retirement or dropout. Likewise, when a member receives a loan, he or she contributes 5 per cent to this fund. This contribution cannot be claimed by members; however, with approval of other fellows, the group fund allows members to borrow money without interest in case of illness, ceremonies, emergencies or any social commitment. Consequently, the group fund acts as protection in case of special needs in the future, as it insulates members against moneylenders. Certainly, the group fund plays an important role as a form of insurance, whereby the emergency cash needs of members are met. In addition, group fund loans for investment are also allowed if all members of the group agree.

The main purpose of GB's savings programme is not to provide for on-lending resources, which are obtained less expensively at donor agencies, but to promote the financial security of members. That is, with the savings scheme, like moneylenders, GB is able to provide emergency funds for associates on a permanent basis. However, these savings are an alternative source of monetary resources that reduce the bank's dependency on outside borrowing. In addition, through the group fund members are able to purchase a share of stock of GB at a cost of 100 Taka (US$2.50), and thereby strengthen their support to the bank. Durable institutions have to be owned by people who have a stake in them. Savings and stockholding at GB not only instil into the members the discipline of saving, but also enhance their stake and sense of ownership of the bank. Currently, close to 88 per cent of its equity is owned by members of the bank.

Moreover, GB has other mandatory savings schemes: the emergency fund, children's welfare fund and special savings. The emergency fund was originated from 25 per cent contributions of the interest payment for each loan. However, in July 1991, this contribution changed to 5 Taka per 1,000 lent, in loan amounts greater than 1,000 Taka. Similarly, members are required to contribute one Taka per week to the children's welfare fund which is not refundable. The emergency fund offers protection for debts when a member dies or against loss and damage to members' property. The children's welfare fund provides education for members' children in schools managed and run by GB groups. Finally, the special savings scheme was designed to fund collective activities undertaken by centre members. This fund is originated by voluntary contributions of group members and is managed by the centre.

Safe and accessible savings facilities of GB are highly valued by group members. Therefore, GB has been able to mobilize deposits of different types from members and non-members. Like commercial banks in Bangladesh, GB offers both deposits and savings services. In addition, savings receive 8.5 per cent interest. Currently, as shown in Table II, savings have grown to a level significantly higher than the total outstanding loans. Moreover, savings per member at GB grew from 670 Taka in 1985 to 4,450 in 1994. The total level of savings mobilized in 1994 by the GB was four times that of the combined savings recorded by five commercial banks in Bangladesh (Khalily *et al.*, 1995, p. 30). The surplus of deposits over total advances that GB has lately assessed implies that GB is now mobilizing rural funds for transmission to other economic sectors. Although GB is a provider of funds for rural and small-scale development projects, it is not significantly increasing rural lending, which might entail risk. Instead, Grameen responds to increases in demand cautiously and responsibly.

At GB savings mobilization is a natural response to a fundamental principle of financial intermediation. Intermediation in financial markets occurs because not all firms and households want to borrow or to save at the same time. Some of them want to borrow at exactly the same time others want to save. This heterogeneity provides the opportunity for intermediaries to bring the interest of borrowers and savers together. The resulting transaction allows both borrowers and savers of GB to attain higher income levels. While in most rural development banks, opportunities for savings are ignored and importance is only given to lending, at GB members use, and highly value, the saving facilities it offers.

Further, savings programmes of GB provide the bank with valuable information about the savings patterns and wealth of its debtors. Additionally, GB's management is conscious that saving is a healthier financial alternative for on-lending resources, as central bank rediscounting stimulates inflation and, on the other side, the bank has no guarantee of sustainability of external inexpensive borrowing and foreign grants.

2.3. Monetary implications of targeted credit for the disadvantaged

Throughout human history, it has been observed that rural, underdeveloped societies rely heavily on bartering for trade. It is argued that as banking facilities are more readily available in LDCs, monetary transactions become more attractive than other forms of transactions such as barter, because the use of money, as a means of exchange, enhances efficiency for the society. Therefore, as banking facilities spread in rural areas, they help to popularize money as a mean of transactions substituting bartered trade.

The pace of economic growth and development of LDCs appears to be greatly influenced by their monetary conditions. Monetary conditions, in turn, are sharply affected by expansions in the banking sector. Furthermore, the expansion of banking facilities makes deposits a more attractive form of saving money. As a result, the ratio of deposits to currency increase, and with it the

Table II.
Savings and deposits at Grameen Bank, 1985-1994

Year	Savings and deposits	Total member saving	Deposits	Total outstanding loans	Member savings as percentate of total savings	Deposits as percentage of total savings	Savings as percentage of total loans	Savings and deposits as percentage of total loans	Savings per member (thousands of Taka) Female	Male	Total
1985	131.70	114.90	16.80	244.20	87.24	12.76	47.05	53.93	0.51	0.97	0.67
1986	246.10 (86.86)	188.70 (64.23)	57.40 (241.67)	322.70 (32.15)	76.68	23.32	58.48	76.26	0.62 (22.14)	1.33 (36.71)	0.81 (20.27)
1987	554.80 (125.44)	408.20 (116.32)	146.60 (155.40)	611.70 (89.56)	73.58	26.42	66.73	90.70	0.97 (55.32)	1.80 (35.33)	1.20 (49.47)
1988	963.70 (73.70)	672.10 (64.65)	291.60 (98.91)	1,040.30 (70.07)	69.74	30.26	64.61	92.64	1.07 (10.55)	3.19 (77.55)	1.37 (13.90)
1989	1,585.20 (64.49)	1,068.90 (59.04)	516.30 (77.06)	1,518.90 (46.01)	67.43	32.57	70.37	104.37	1.24 (15.56)	4.63 (45.16)	1.61 (17.73)
1990	2,490.40 (57.10)	1,687.10 (57.84)	803.30 (55.59)	1,987.90 (30.88)	67.74	32.26	84.87	125.28	1.42 (14.84)	7.21 (55.75)	1.94 (20.21)
1991	3,559.80 (42.94)	2,375.80 (40.82)	1,184.00 (47.39)	2,640.50 (32.83)	66.74	33.26	89.98	134.82	1.65 (15.70)	9.41 (30.56)	2.23 (14.82)
1992	5,260.80 (47.78)	3,478.80 (46.43)	1,782.00 (50.51)	4,417.70 (67.31)	66.13	33.87	78.75	119.08	1.80 (9.49)	11.94 (26.85)	2.44 (9.63)
1993	8,728.40 (65.91)	6,263.85 (80.06)	2,464.55 (38.30)	8,807.40 (99.37)	71.76	28.24	71.12	99.10	2.71 (50.69)	15.18 (27.14)	3.45 (41.31)
1994	12,231.84 (40.14)	8,969.14 (43.19)	3,262.70 (32.39)	11,308.70 (28.40)	73.33	26.67	79.31	108.16	3.62 (33.50)	17.48 (15.19)	4.46 (29.09)

Note: Figures in parentheses are percentage growth rates for the respective figure over the preceding year
Source: Grameen Bank

capacity of the banking system to increase the money supply to match a growing demand for money.

A number of papers have shown empirically the impact of the development of the banking sector on the supply of money. Gurley and Shaw (1967) maintain that an effective way to promote monetary transactions in developing countries is by promoting growth in the number of banks and their dispersion in rural areas of LDCs. To judge from the empirical results, the development of banking is a factor that contributes to an increase in money demand (see Aghevli, 1988) The number of banks per capita has a positive and significant effect on the demand for money. However, the empirical results suggest that the expansion of banking facilities itself is an endogenous element. That is, the banking sector has expanded in LDCs as a result of the money demand increases that a growing per capita income brings about in the rural communities.

By and large, this seems to be the case in Bangladesh. The presence of GB in rural Bangladesh has stimulated the monetization of economic activities. Money became more popular when GB took banking services to the rural poor. Therefore, some authors maintain that the high expansion of GB's banking services is being stimulated endogenously by the increase in the demand for money. Most social surveys of GB's members show that participation enhances increases in members' income.

3. Group lending

In order to grant credit without any collateral, GB has designed a successful method of peer monitoring. This bank uses an innovative incentive scheme to "internalize" borrower selection and monitoring costs. "Peer monitoring is a system in which loans are given to a group of borrowers who are mutually responsible for repayment and agree to guarantee others in the group" (quoted from Mahabub-ul Islam *et al.,* 1993, p. 25). The key feature of group lending is the joint liability involved. Every group member receives an individual loan, but everyone is responsible for the other peer members. Collective responsibility substitutes collateralized assets. The bank explicitly requires that borrowers form a group of five people, who then simultaneously apply for a loan. The bank either approves or rejects the loan for the entire group. Anyone interested in obtaining credit at GB has to constitute a group of five parties with similar needs and from the same village. In order to avoid family bias in group control, only one member of a household may join a group and relatives are not admitted in the same group. At GB, male and female members form separate groups.

One essential feature of group lending schemes is that members provide one another with mutual insurance against default. Members of a group are self-selected; thus, a potential defaulter is singled out at the very beginning by fellow members of a group. That is, the bank is able to exploit the local knowledge of the members in a group to make the corresponding credit granting decisions. In addition, lending to groups has achieved a remarkable success in reaching the target group (the poor), as the associated members certify the social conditions of other peers. At GB, delivery of credit packages to the poor groups is direct, with no broker or middlemen involved.

Owing to the stake that everyone has in the group, members assist one another in time of need. Likewise, they put pressure on others to make them fulfil due obligations. Partners not only share market information, but also transfer resources among themselves to facilitate scheduled repayments. Like money lenders, GB closely supervises its debtors; however, group members – not the bank – primarily bear the monitoring task.

Unlike commercial banks which rely on collateral assets to assess credit worthiness, group lending allows a bank to harness social collateral. Indeed, if social penalties are sufficiently severe, group lending will necessarily yield higher repayment rates than individual lending. In any event, under an individual lending contract, all the borrower has to fear, if he/she defaults, is the penalties the bank can impose. On the other hand, under group lending he or she may also incur the wrath of other partners. Furthermore, at GB a repeat loan is not approved for any member until the accounts of all affiliates of the group are settled. Similarly, the loans are granted sequentially not simultaneously. Therefore, the probability of receiving a future credit plays a key role in loan repayment at GB.

After two or three weeks of being constituted, credit to groups starts flowing. Two members will receive the loaned funds first. Usually the first two members that receive loans are the poorest two of a group of five. Provided that the first two credits are being repaid normally in weekly instalments for the first six weeks, the next two members become eligible to receive their loans. Finally, when all four debts are being satisfactorily serviced for the first 12 weeks, the group chairperson is eligible to exercise his/her credit. The money should be immediately applied to a productive activity. Indeed, hundreds of income generating activities are currently being funded by GB. Loans have an upper limit of US$125 and must be repaid in 50 equal instalments. For general loans GB charges an interest rate of 20 per cent; that amounts to five points above the market rate, but it is still lower than the rates charged in the informal markets.

Each group elects a chairperson who is responsible for the group's financial discipline. This position rotates on a yearly basis so that all members have the opportunity for leadership. Similarly, a secretary is also elected to help the chairperson fill out the necessary papers. Even though the chairperson is the last to receive credit, from the beginning he or she is responsible for discipline in the group and for supervision of loan utilization by the members. Usually, groups meet once a week at the centre place to revise the income-generating activities selected by members, as well as to discuss GB's regulations. Once a group is formally constituted, members take training sessions on GB's rules and social issues. In addition, once the first two loans are delivered, every member has the obligation to save one Taka (Bangladesh's currency) per week in a group fund at GB.

Usually around six or eight groups from the same village constitute a GB centre, which is the basic unit at GB. The centre is where bank transactions generally take place. Grouping the borrowers into a centre facilitates the processing of loans and reduces transaction costs, thereby contributing to the bank's viability. Like groups, female and male members form separate centres. In the centres, members have weekly meetings to discuss GB's rules and activity selection. In case the entire group defaults, the centre is responsible for the debts. Similar to groups, centres elect – through the group chairpersons – a chief and a deputy chief. Democracy is the governing principle, and all decisions are made by consensus. Attendance at meetings is mandatory. The chairman of the centre and group leaders meet on a daily basis to discuss loanable fund utilization. Additionally, every week a GB employee visits the centre to supervise and co-ordinate debtors' activities, as well as to collect or disburse loans. Unlike most banks, at which financial information concerning the borrower is private, GB has no bank secrecy law, as everything is openly discussed. In fact, at GB all sorts of banking transactions take place in the presence of other members.

3.1. Economic rationale for peer group lending

Social and economic literature helps us understand why peer group lending has been successful for GB. It also provides us with a theoretical context in which to consider the above mentioned solidarity group experience. In the past, the financial and economic literature used to be somewhat sceptical in assessing the possibilities of success of group lending. In later years, however, as a result of GB's performance, some authors have built theoretical models that aim to show why, under group lending systems, loan repayment is a rational alternative.

First, an article by Huppi and Feder (1990) outlines an economic rationale behind peer group lending. In economic terms these authors underscore many of the practical problems that the mutual guarantee arrangements and group lending approach resolve. For example, they note that group schemes allow lenders to reach economies of scale by lowering their per unit transaction costs. As direct costs of lending, per unit of money lent, vary inversely with the size of the loan, it is more costly to lend small amounts to several individual borrowers than lending a larger amount to a group in a single credit operation. Hence, at least four cost advantages for lending to groups are claimed: lenders reduce transaction costs, the costs of default and collecting delinquent loans are also diminished; costs of providing technical assistance are lower; and finally, borrowers' transaction costs are also significantly lower. As a matter of fact, the empirical evidence across countries shows that group lending reduces transaction costs[5].

Even acknowledging that the lender's transaction costs may be reallocated to the borrower, this cost to the borrower seems reasonable when compared to the implicit cost of inaccessibility to credit sources. Additionally, Huppi and Feder contend that peer lending contributes to enhance information about borrowers, which reduces the risk of default. They also note the improved bargaining position of borrowers when they negotiate in groups. Thus, participating group members improve their access to credit and achieve better terms than those that they would be able to obtain as individual borrowers. Likewise, by decreasing transaction costs and lowering the risk of default, these authors maintain that financial services can be provided to individuals who would otherwise have no access to credit.

Actually, the lender costs of determining the probability of default and the credit worthiness of borrowers are highly important. Hence, it is vital for group lenders, the screening function provided by the group associates. More importantly, peer pressure induces repayment, as other members are not willing to forgo access to future loans. In the same way, Huppi and Feder (1990) note that "the lender's ability to deny credit to groups or cooperatives, if any member defaults, is often the most effective and least costly way to encourage loan repayment".

Second, Stiglitz (1990) has developed a general theory of peer monitoring, based on the "Imperfect Information Paradigm". Peer group lending addresses the three principal problems of a lending relationship: screening, incentives and enforcement. By allowing a group to screen members, lenders benefit from intergroup knowledge of members' probability of default. According to Stiglitz there is a transfer of risk from the lender to peer members of a group. Since the borrower bears more risk, he/she has to devote more effort in generating income for repayment. In addition, the potential for repeat loans provides a clear incentive for repayment. Finally, peer group members assume the enforcement function, thus reducing lender costs. In this case, Stiglitz maintains that small groups, as employed by GB, increase the risk attached to each member; however, the incentive for monitoring increases. On the other hand, with large groups there is a free-rider problem. Each member would prefer that others expend the energy required to monitor. Moreover, in case of a member default, with large groups the costs are smaller, thereby reducing the incentives to monitor (see Stiglitz, 1990, p. 362). After some years of trial-and-error experimentation, the management at GB has found that five people is close to an ideal number of members.

Third, Varian (1990), based on the principal-agent (agency costs) theory, proves that if a principal manages to monitor agents with other agents will sharply reduce supervision costs. By and large, this has been the case of the Grameen Bank of Bangladesh in the last 15 years. In addition, if agents insure each other across the states of nature that are not available to the principal, he will be unambiguously better off. Therefore, it is highly beneficial to a principal that agents mutually insure one another. Finally, Varian stresses the factor that loans at GB are granted sequentially, rather than simultaneously, as being very important to assess repayment. The reason appears simple as he examines a sequential incentive plan in which agents form a group and first serve as monitors; later, nonetheless, they are monitored by other agents. As those members that did not receive the loan in first place, badly need money, they will urge those that obtained it to repay. Eventually, this will enable them to obtain their loan. In the same way, some pressure will come from those fellows that have already repaid a loan, when they need another credit.

Finally, Besley and Coate (1995) explore the role of group lending in improving repayment rates. By applying game theory the authors formulate a "repayment game" between borrowers. According to these authors, there are positive and negative aspects of introducing group lending. The positive effect results from the possibility that successful borrowers may repay loans of partners that did not make enough profits to service their debts. The negative effect arises if the entire group defaults, when at least some members would have repaid, had they not been saddled with the weight of liability for their partners' loans. The authors conclude that if social sanctions are severe, group lending must improve repayment performance.

Group lending has not gone without some drawbacks. The existing literature shows that, GB apart, the performance of group lending is mixed. Adams and Ladman (1979) and Adams and Romero (1981) offered a varied history of group lending. While Adams and Ladman accept that group lending reduces transaction costs for borrowers, they maintain that the costs for the lenders increase. Since only several designated group leaders are responsible for negotiating the loan, typically the costs for the borrowers are kept low. These authors contend that too little research has been done on group lending to arrive at a final conclusion about the potential of this approach. However, they maintain that joint liability alone is not effective in improving repayment (Adams and Ladman, 1979, p. 91). These authors admit that some group lending programmes have yielded satisfactory results while others have performed poorly. Also, the authors consider that high loan repayment appears to be more closely associated with high quality banking services than with group formation. Adams and Ladman conclude that "more realistic and flexible interest rate policies would provide a more healthy economic and political environment for financial innovations like group lending" (1979, p. 92).

Contrary to GB's experience, Adams and Romero (1981) show that in the case of Dominican Republic, the group lending programme has not been as successful as in Bangladesh. In 1973-74 the Dominican Development Foundation (DDF), an agency to promote social and economic development in Dominican Republic, made loans to about 400 groups with 7,000 members (Adams and Romero, 1981, p. 220). Since then both numbers have declined. The evaluation of group lending practices shows that in Dominican Republic most of the credited groups have disbanded. Some of them were no longer interested in obtaining loans from DDF and some other disbanded to avoid repayment. The results of joint liability for loan repayment in Dominican Republic were mixed. Some well established groups maintained informal vigilants committees to force members to repay. The authors maintain that both formal lenders in Dominican Republic, The DDF and the Agricultural Bank, very often delayed disbursement. Borrowers received their loans several months after the farmers incurred in the production expenses. Therefore, farmers had to turn to professional moneylenders and they did not appreciate the lending from formal institutions. The quality and permanence of financial services play a key role for repayment. Finally, Adams and Romero (1981) admit that group lending in Dominican Republic observed significantly lower transaction cost than individual lending. For instance, the effective average rate of borrowing costs on an annual basis was 15 per cent for groups, whereas it averaged 18 per cent for individual borrowers.

3.2. Group lending and informal finance

Some authors argue that the successful scheme of GB is a product of some resemblances with informal lending. The point they put forward is that peer monitoring is similar to moneylender monitoring. Both moneylenders and group lending use local networks to supervise activities of borrowers. In a peer lending model, other partners in the group are those who supervise the borrowers. They usually have more knowledge about their partners than the lending institutions. Certainly, moneylenders only lend money to neighbours so that they closely supervise debtors. In case of default the borrower will never obtain credit from the same lender. Since the borrower considers the moneylender as a trustworthy and permanent source of credit, he or she will assign a high value to this financial service. The moneylender represents a credit solution either for emergencies or for production expenses. Consequently, the default rate for moneylenders is negligible.

In fact, the group partners play the same monitoring role as moneylenders. They become responsible for any default in the group. Like moneylenders, members accepted the risk of default of others, because they know and trust one another in the group. The final result is that all the features that ensure moneylenders' repayment tend to be present in a well-designed peer credit programme. Therefore, it is expected that group lenders be able to maintain a low default rate as well.

Furthermore, some authors contend that group lending organizations have been able to exploit the existence of social interrelationships among rural residents (see, for instance, Besley and Coate, 1995; Besley *et al.*, 1993). That is, peer lending programmes are able to harness a social collateral. Indeed, in this sense group credit resembles an informal financial institution widely used in developing countries which is known as rotating savings and credit associations (ROSCAs). In ROSCAs, members contribute a regular amount of money per a short period (week, fortnight or month), for the life of the ROSCA, with group members rotating turns to collect the full contribution of all members in each period.

There are many different systems of assigning the order of rights for collection in a ROSCA. However, the point to stress here is that in ROSCAs recovery of contributions is seldom a problem. There are social foundations of traditional ROSCAs that influence their success. First, these institutions are based on interpersonal ties, mutual confidence and mutual obligations. Second, ROSCAs assist in small scale capital formation as they create savings. Members highly value the opportunity to save offered by ROSCAs, because sooner or later they will be able to undertake an investment. In any case, a defaulting member not only loses the opportunity to remain in the association, but may also be shunned and experience the loss of social and business ties that accompany membership.

The anthropological literature on ROSCAs is replete with examples to illustrate the members' powerful commitment to pay contributions on time. Ardener (1964, p. 216) observes that in ROSCAs "a member would go to great lengths, such as stealing or selling a daughter into prostitution in order to fulfil his obligation to his association; failure to meet obligation can even lead to suicide".

It seems central to understand the sustainability of ROSCAs that there is a sort of "social collateral" which can be harnessed in case of default. Such collateral is what explains why ROSCAs tend to avoid default in practice. Similar to ROSCAs, group lending relies on the same type of collateral. Like ROSCA membership, peer groups are formed of individuals whose circumstances and characteristics are well known to one another. Successful group lending programmes and ROSCAs are formed of homogeneous members. The incentives that ROSCAs' members have to contribute on time are the same that group members have to repay scheduled loans. In both group lending and ROSCAs, if social sanctions are severe, repayment is highly guaranteed.

To sum up, most authors note that group lending works better when groups are formed through self-formation. Additionally, it seems that small homogeneous groups have attained higher repayment than larger ones. Likewise, group members have a further incentive to repay if social services that enhance member accountability are simultaneously provided. Finally, some authors maintain that the threat of losing access to credit plays a key role on repayment; however, it works only as long as the lender is in the position to provide credit on a permanent basis. That is, when lenders' services deteriorate, loan delinquency rises. By and large, GB's group lending programme has successfully taken advantage of the many features of informal lending that contribute to reduce loan defaults.

4. Participation of women

Women represent the largest share of the poor in developing countries and they are very often deprived of their full rights to participate in productive activities of the nation. In Bangladesh, women have been subjugated historically to many social vices such as early marriage, excessive child bearing, illiteracy and unemployment. One of the most remarkable achievements of GB is that it has revolutionized the rural people's attitude towards women in Bangladesh.

Certainly, one of the most important particularities of GB is the lending programme for women. The bulk of GB's customers are women. In crediting women, GB is a pioneer institution whose programme has proved to be one of the most successful attempts to involve poor women from LDCs in economic activities. Traditionally in Bangladesh, and many other poor countries, women have been neglected in the development process. However, recent GB's annual reports show that this institution has a better experience with its women members than with their male counterparts in terms of income growth and loan repayment. Furthermore, the success rate of GB projects is higher for women than for men. GB has statistically proved that women are better risk than men as debtors. In 1992, the loan recovery rate for men was 89 per cent, whereas for women it was 97 per cent.

Table III shows the gender distribution of GB's borrowers. Throughout GB's history, the relative participation of men in the credit programme has been decreasing. When GB was established in 1983, 65 per cent of its customers were women. Presently 94 per cent of members are female. Judging from this trend it seems that GB's future is confined to be an exclusive bank for women. Therefore some sociologists maintain that GB brought an extraordinary opportunity for women's emancipation in Bangladesh. For instance, Ainon Nahar Mizan (1993), using data from two samples of women from a rural population, one sample with GB's participants and a second sample with a group of non-participants in GB's programme, aimed to find whether participation in this programme brings about greater influence in household decision making. The author found out that GB participation has a positive and significant effect on women's decision making at household level.

Moreover, sociologists maintain that there is something in the nature of women that makes them more responsible than men when they are subject to credit contracts. The role that women have traditionally played in the household has endowed them with an outstanding sensibility to manage the family budget, as well as to assess the utility and value of money. Unlike men, in poor countries, a poor woman will seldom spend money in night-clubs or gambling places. On the other hand, women have some natural productive skills in certain income-generating activities that in LDCs are normally underutilized.

Sociology literature is prolific in topics related to women and financial services. Getubig and Thas (1993, pp. 13-21) argue that because of their stronger commitment to the wellbeing of their family, especially their children, women borrowers usually have longer terms in mind when they make future plans. "They are the ones who see their children go hungry and who feed themselves last if there is not enough food for the family" (p. 15). Therefore, more often that not, these women defy every social threat to be the first few to declare their willingness to join GB-type programmes. Since they have nothing to lose, they are more determined to use loan money effectively for income-generating activities to ensure that their loans are repaid promptly and subsequently qualify to borrow a larger amount at GB. Certainly, women have much less access than men to alternative credit sources; thus, they value more the opportunity they obtain from the GB to earn income for themselves and their families. Consequently, women across countries consistently have shown greater repayment rates.

By and large, GB has succeeded in mobilizing poor people in rural Bangladesh, especially women, who have been put to work by its credit programmes. This has not only improved their economic conditions and living standards but also improved their self-esteem and social status. Actually, GB

Table III. Membership and borrowing at Grameen Bank, 1985-1994

Year	Membership			Number of borrowers			Distribution of borrowers		Number of borrowers as percentage of members		
	Total	Female	Male	Total	Female	Male	Female	Male	Total	Female	Male
1985	171,622.00	112,362.00	59,260.00	152,463.00	99,332.00	53,131.00	65.47	34.53	88.84	88.40	89.66
1986	234,343.00 (36.55)	173,885.00 (54.75)	60,458.00 (2.02)	209,467.00 (37.39)	155,142.00 (56.19)	54,325.00 (2.25)	74.20	25.80	89.38	89.22	89.86
1987	339,156.00 (44.73)	275,600.00 (58.50)	63,556.00 (5.12)	328,557.00 (56.85)	265,415.00 (71.08)	63,142.00 (16.23)	81.26	18.74	96.87	96.30	99.35
1988	490,263.00 (44.55)	420,865.00 (52.71)	69,398.00 (9.19)	472,430.00 (43.79)	403,625.00 (52.07)	68,805.00 (8.97)	85.84	14.16	96.36	95.90	99.15
1989	662,263.00 (35.08)	588,802.00 (39.90)	73,461.00 (5.85)	648,267.00 (37.22)	575,117.00 (42.49)	73,150.00 (6.31)	88.91	11.09	97.89	97.68	99.58
1990	869,538.00 (31.30)	791,606.00 (34.44)	77,932.00 (6.09)	852,622.00 (31.52)	775,547.00 (34.85)	77,075.00 (5.37)	91.04	8.96	98.05	97.97	98.90
1991	1,066,426.00 (22.64)	986,373.00 (24.60)	80,053.00 (2.72)	1,041,630.00 (22.17)	962,148.00 (24.06)	79,482.00 (3.12)	92.49	7.51	97.67	97.54	99.29
1992	1,424,396.00 (33.57)	1,334,285.00 (35.27)	90,111.00 (12.56)	1,385,324.00 (33.00)	1,296,558.00 (34.76)	88,766.00 (11.68)	93.67	6.33	97.26	97.17	98.51
1993	1,814,916.00 (27.42)	1,707,555.00 (27.98)	107,361.00 (19.14)	1,682,914.00 (21.48)	1,585,483.00 (22.28)	97,431.00 (9.76)	94.08	5.92	92.73	92.85	90.75
1994	2,013,130.00 (10.92)	1,892,287.00 (10.82)	120,843.00 (12.56)	1,860,674.00 (10.56)	1,751,775.00 (10.49)	108,899.00 (11.77)	94.00	6.00	92.43	92.57	90.12

Note: Figures in parentheses are growth rates for the respective figures over the preceding year
Source: Grameen Bank

concentrates its lending to poor women because 15 years of experience show that women are better borrowers than men. In addition, female borrowers utilize their loans only for income generating activities, thus ensuring repayment. For these reasons most GB replications have adopted a deliberate policy to concentrate their lending on women borrowers. Indeed, the low repayment rate crises experienced by one replication in Malaysia (Amanah Ikhtiar Malaysia) at the early stage was precipitated by male borrowers whose repayment rate plunged to 86 per cent, in contrast to 97 per cent among female borrowers at that time.

Moreover, a growing number of banks worldwide assign a significant value to the sex of credit applicants. Generally female applicants are assigned more points than men in credit assessment. In the USA, consumer credit scoring models used in most department stores consider the sex of applicants as an important variable to assess creditworthiness. Most of these models assign higher values in female cases (see Durand, 1941) for the seminal model of credit scoring. However, in the USA, credit granting discrimination on basis of age, sex and race is banned by law. Therefore, in the USA such considerations are not explicitly and openly practised as in some other countries.

5. Social development programme

Although the purpose of GB when it was launched was to alleviate poverty through credit, its originators soon realized that credit was not enough. The poor lack financial discipline and technical knowledge to manage their small businesses properly. In addition, the poor face limitations in housing, nourishment, health and education conditions. Therefore, peasants are disadvantaged in a competitive society. To overcome this situation, GB has established a welfare programme to make the poor people more productive. GB provides members with family planning, education, public health and other social services. All members have to observe what is called "the 16 decisions", which are 16 rules that every member follows to improve living standards. Under the "16 decisions" members are forced to improve houses, produce food domestically, eliminate dowry in marriage and keep a healthy environment.

5.1. Housing lending programme

Since 1984 GB has been granting housing credit to members with high seniority. Housing conditions are very poor in Bangladesh, even more so for the poor, who construct their houses with non-durable materials on flood-prone low lands. Hence, their houses are the first victims of floods. Because most of the poor people of Bangladesh cannot afford homestead land, or even if they own land, they do not have an adequate place to live, GB offers provision of housing loans to members who have proved their creditworthiness.

If the poor people are given credit they could generate income not only for consumption and investment but also to build a house for the family. In particular, housing loans enable women to own houses, provided that they own the dwelling area. House-building loans provided at lower interest rates with higher ceilings and longer repayments periods offered by GB have enabled many rural households to improve their housing conditions.

Even though GB is not an institution to provide charity to the rural poor, it provides loans for the homeless to buy homestead land. Once a member owns a piece of land, he or she becomes eligible to get a credit for house building. House-building loans are granted for amounts that range from Taka 8,000 to Taka 18,000 for a number of years equal to the number of thousands of Taka in the loan amount. For instance, a Taka 10,000.00 loan must be paid in ten years. Repayment of a basic housing loan is normally fixed at Taka 20 per week. Out of this amount, Taka 15 go to repayment of principal, Taka 4 to interest and 1 for contribution to a defunct fund.

In granting the housing loans, GB is tied to very strict rules. Housing loans are generally given to the most creditworthy borrowers, i.e. those who have maintained a regular repayment schedule and adhered to all other rules and conditions of GB. However, among good borrowers, preference is given to those who are poorest. Only branches that are more than two years old can grant this type of loan. The proposed borrowers must fulfil the following requirements: they must show a perfect record of repayments; they must be at least second time loanees; and they must own the land to build the house.

In addition, for members to receive housing loans, the centre ought to:

- be at least two years old;
- have its own centre house;
- have an excellent record of discipline and repayments; and
- be free from dowry practices.

Preference is given to women that have no earning male at home or female borrowers who own homestead land; also, borrowers from centres that acquired land to build a cluster of houses for members have priority, and finally special consideration is given to the poorest and needy borrowers in the centre.

The names of proposed borrowers are decided democratically in centre meetings. Additionally, the centre must send a pledge to the bank with the signature of all members and the promise to repay liabilities in case the loanee fails to do so. In the allocation of housing credit, GB's centres play a significant role, because the centre is normally the entity that chooses beneficiaries of loans and it is responsible for defaults. By 1994, in Bangladesh more than 600,000 borrowers had received the benefit of a housing loan, with a cumulative disbursement of Taka 4,671.3 million. To analyse the socio-economic impacts of the GB's housing loan programme, Hasnat and Rahman (1989) conducted a field survey in ten villages of Bangladesh in December 1988. They interviewed 285 borrowers chosen at random. Out of the 285 members interviewed, 116 turned out to be housing borrowers[6]. From the very beginning the survey showed that having a house is a source of joy and happiness that revitalized self-dignity and self-confidence for poor people. Likewise, house ownership enhanced social status and asset accumulation; for most members interviewed a house was seen as a vital investment. The survey also showed from numerical evidence that:

- housing loans allowed borrowers to work two hours more on average than general loanees only;
- both groups, general and housing borrowers, accumulated assets after joining GB; however, those with housing loans were able to accumulate more than those with general loans only;
- housing loanees have diversified their activities more than only borrowers of general loans;
- borrowers of housing credits increased their income at a higher rate.

The members interviewed attribute this increase to kitchen gardens and in-house production.

An important argument in favour of housing loans is that they increase borrowers' productive capacity and they provide space for self-employment. In fact, the above-mentioned survey showed that per-capita expenditure of housing loanees was on average 20 per cent above the general borrower.

Finally, it is important to note that GB's financed houses have innovative structures that withstood the floods of 1987 and 1988. GB requires that houses be built with four cement pillars and other strong materials. Therefore, damage done to houses owned by housing loanees was significantly different from the damage to houses owned by general loanees. For instance, repairing expenses averaged Taka 552 for all loanees; whereas they only averaged Taka 330 for housing borrowers (Hasnet and Rahman, 1993, pp. 87-88).

5.2. Other social services

Certainly, GB seeks to promote social and economic development through financial intermediation. Thus, GB ultimately aims to improve members' wellbeing. The social development programme of GB encourages borrowers to establish schools, pre-schools and day-care services to tutor members' children while they are engaged in their business activities. Furthermore, GB school system also provides member families with a full programme of elementary education. In 1994, there were 15,000 schools in Bangladesh run by groups and co-ordinated by GB, with a total of 400,000 students all over the country.

Additionally, the social programme of GB supplies seedlings, trees and seeds for kitchen gardens. Members are encouraged to plant trees and grow kitchen gardens, because the development of kitchen gardens often provides a regular income from which the borrower can partly finance the weekly loan instalments. Only in 1994, almost three million trees were distributed and planted under GB's sponsorship. Likewise, the mixture of GB's training programme for members on health and nourishment, as well as the in-home food production has increased the nutrition level of members and their families.

Finally, the bank's effort to prohibit dowries in marriage is a social intervention that promotes both social and economic development. The GB has realized that, if this custom continues, credit provided to the poor would be used to pay for dowries and wasteful marriage ceremonies instead of increasing borrower income. This practice has proved to be financially disastrous for poor families in Bangladesh. Therefore, GB has devoted a significant amount of resources to make members aware of the need to eliminate dowry.

5.3. Poverty alleviation

Borrowers' viability, or general benefits that member borrowers have obtained from the GB programme, can be analysed in different ways. One of them is by studying the wages of rural population and their evolution. Some authors contend that wages have increased in areas with GB's influence (see Khalily *et al.*, p. 77). In addition, participants' savings is another parameter that also shows how GB affiliates' assets and wealth have changed throughout time of participation. Table II shows that savings per member increased from Taka 670 in 1985 to 4,450 in 1994. That amounts to an increase of 564 per cent in the last ten years. Moreover, almost 600,000 members have either built or improved their houses with GB's housing loans, which is the first evidence of material wellbeing, as better houses mean more assets and wealth for GB's members.

It is a classic illustration of economic theory that if there is relative abundance of one productive factor, say labour, gradual increases of the scarce factor (capital) will make labour more productive. Therefore, it has been observed worldwide that microlending, as practised by GB, has enhanced extraordinarily high returns for borrowers. Consequently, there exist economic foundations that support microcredits as a means to alleviate poverty. Finally, as already mentioned elsewhere, available data show that GB participants take on average five years to cross the poverty line. However, it takes borrowers an average of eight years for "economic graduation" (Chowdhury and Khandker, 1995, p. 33). Graduation in GB's terminology means that members do not require small credits any longer. Some of the graduated members have moved their business to commercial banks, which lend at lower interest rates and grant considerable larger loan amounts; other members have accumulated enough resources to finance their own working capital.

5.4. Criticism

Critics, however, argue that GB is a misnomer; it is not a bank at all. Deposits from individuals and firms account for a small per cent of its assets. The bank actually functions as a conduit for huge grants from governments and international agencies. That aid is then used as the basis of a credit pyramiding scheme that not only provides micro-loans but also funds a feminist social engineering that fights against children and marriage.

GB gets funds at below-market rates from donor agencies, and deposits that money in fixed-term and short-term accounts in commercial banks that pay higher rates. Grameen makes a huge profit this way. The bank's ideological mission requires that a borrower discloses her private life to the bank's staff. The fact that 93 per cent of Grameen's borrowers are women is part of its social agenda. GB believes that population and marriage are the primary causes of Bangladesh's poverty. Women drawn into the Grameen orbit emancipate themselves from family and biology and enslave themselves to the 16 decisions of GB.

If GB claims to be a private and profitable institution, the obvious question is why the other banks cannot do so. If GB were in fact as profitable as its animators claim, Western banks would be ready to copy the system. Bankers would love to discover that the poor are 98 per cent creditworthy.

Its detractors maintain that GB pretends to be a private institution, because its borrowers are forced to acquire a share of stock. However, the "owners" are not free to sell their stock shares further. These critics argue that GB, at best, is making profits investing in commercial banks at market interest rates with money that it has borrowed at subsidized prices. According to them, GB's reputation is a consequence of its leftist social agenda and not of its economic successes (Tucker, 1995).

In conclusion, the GB's approach, despite minor criticism of its activities, to poverty alleviation seems to be an effective tool for rural poverty reduction. The programme supplies credit to improve the physical productive capacities of the poor. In addition, it provides the disadvantaged with human development inputs to improve their overall productive and living standards. The critics, on the other hand, do not provide us with an alternative solution to poverty alleviation in developing countries.

6. Summary, conclusion and policy implications

The purpose of this paper has been to examine critically the GB experience in Bangladesh. The purpose is to understand the essential elements of its operations and the factors that enabled GB to reach the poor. GB has certainly established its credentials as an institution that aims at providing credit to the landless and asset-less poor in rural areas of Bangladesh. The GB makes more than 500,000 loans per month with an average size of $70.00.

Credit gives the recipient the power of entitlement to society's productive goods and services with immediate effect, unlike most of the other programmes for the poor that tend to create the unintended negative effect of dependency on the service providers. The poor decide how to use this entitlement in the type of income-generating activities that they know best, thereby enhancing the chances of success. Although credit is a highly potent instrument which enables the poor to be self-reliant in a cost-effective way, the resource is systematically denied to the poor by the conventional banking system. GB has demonstrated that the poor are bankable, capable of making good business decisions in utilizing their loans and repaying them on time. GB showed the possibility to develop a viable and self-reliant credit programme for the poor.

The GB uses an unambiguous eligibility criterion which ensures that only the poor or very poor can participate. Poverty is an exclusion factor for the conventional banking system. In GB, on the contrary, to obtain a credit a person must prove that he/she is poor. In any case, eligible individuals must own less than half an acre of arable land or have less than the commercial value of one acre of mid-quality land in assets. These clearly-defined criteria leave no room for misinterpretation or abuse by the bank's workers.

GB concentrates its lending to poor women as they make better borrowers than men, utilizing their loans only for income-generating activities and ensuring that their loans are promptly paid from their profits. Additionally, women account for an extraordinary high share among the poorest and most deprived in most societies. As a result, the performance of GB in providing credit to the rural poor has been impressive. For these reasons, most GB replications have adopted a deliberate policy of concentrating their lending to women borrowers.

As students of rural development we have learned, from GB and other similar lending experiences, that loans to untrained borrowers become grants when they are made without strict enforceable procedures. When GB starts to establish a new branch, its employees undertake a campaign among the potential borrowers to inform them about the Bank and to motivate them to organize themselves into groups of five like-minded members. Each group elects one group leader among themselves. Every six groups form a "centre" which serves as the basic operating unit of GB. It is at the centre that weekly meetings are conducted to discuss loan applications proposals openly and to accept weekly repayments and compulsory savings deposits. While the loans are made to individual members, the group as a whole is expected to be responsible for the regular repayments of the loans of all their members. This form of grassroots organization not only promotes solidarity and participation among the members, at the group and centre levels, but also promotes mutual support and peer pressure to ensure that the loans are properly utilized and repayments made promptly. Grouping the borrowers into a centre which meets weekly also facilitates the processing of loans and reduces transaction costs, thereby contributing to the bank's viability.

GB charges market rates of interest (20 per cent) and stipulates that loans must be used for income-generating activities. The loans require neither collateral nor guarantor, thereby removing two of the biggest obstacles to accessing the formal credit market. The application and processing procedures of GB loans are very simple and straightforward once the loan proposal is endorsed at the centre meeting. These procedures are as far as possible kept verbal. The borrowers are taught to write their names as acknowledgement of receipt of the loan during centre meetings. This is designed to accommodate illiterate borrowers who might otherwise be handicapped to participate.

The loaned amount, which is based on investment requirements, tends to be small and manageable. It is released in cash, and payable in equal weekly instalments over a one-year period. This practice ensures that the poor borrow what they actually need and are not overburdened with large repayments.

GB does not permit any borrower to pay up her loan at a quicker pace than weekly. Payment in advance has proven to retard the development of group solidarity and might be likely to destroy the group's discipline. GB promises a second and bigger loan when full repayment of the first loan is completed.

The most powerful incentive/penalty feature adopted by GB is the assurance of a bigger subsequent loan on complete repayment of the previous loan and the denial of this to any defaulting member and other in her group. Because the borrowers highly value this access to a reliable and sustained source or reasonably-priced credit, they go out of their way to make sure that they make their loan repayments on time. This is specifically true of the poor women borrowers who have no alternative credit access at all, often not even from the moneylenders.

The dropout rate in GB is low (about 5 per cent), while the loan repayment rate has been consistently high (above 90 per cent) indicating that the programme's benefits are enough to make participants worthwhile. This is evidence that GB borrowers have accumulated enough savings to finance almost 80 per cent of its loans outstanding in 1994.

Becoming a part of GB's grassroots organization also provides mutual support and solidarity, social interaction, and other socially beneficial activities like pre-school services. These in themselves are added incentives for the borrowers to keep in good standing with their group and centre. Yet another incentive introduced by GB in recent years is the provision of housing loans to the older members (that is, members who joined GB at its initial stage) who have proved their creditworthiness.

The whole structure of GB operates on a clear delineation of responsibility and accountability. This contributes in a major way to the success of GB in keeping its operations efficient and free of corruption. The staff are also encouraged to provide constructive critique of the Bank's system so that the methods can be continually improved. The investments for which GB loans are utilized are characteristically labour-intensive, fast-turnover microbusinesses in sector such as trade, food processing, manufacturing and services, with only a few in small-scale agriculture. GB encourages the borrowers to utilize their loans in activities that they are already familiar with.

A compulsory savings requirement is a key feature of GB. An automatic deduction of 5 per cent of the loan amount is made at the outset which goes into the group's savings account called the Group Fund. Thereafter, each member of the group is required to pay one taka (or US$0.04) at each weekly meeting which goes into this fund. The latter is intended to provide ready access to cash by members of the group, with the group's approval. Through this fund, the members are able to purchase a share of stock of GB and thereby strengthen their support to the bank. The Group Savings Fund also plays an important role as a form of insurance, whereby emergency cash needs are met.

Although GB has been largely funded by the Government of Bangladesh and donor agencies, it has operated pretty much autonomously without interference from its sponsors in the way it administers its credit operation. This autonomy has enabled GB to innovate over the years a variety of ways to carry out its operations, disregarding unworkable methods while improving on those that were workable. It is again this autonomy that has enabled GB to offer shares to its poor borrowers. Currently, close to 88 per cent of its equity is owned by the borrowers of GB.

All the staff receive their basic field training of six months and remain probationary for another six months. The six-month basis field training is divided into three modules. During the third module, the trainee is sent to an older branch which has some problems so that she can learn how these are being handled. During the training, the trainees come to grasp fully the philosophy and principles of GB. Training under the GB is rigorous and practical.

The success of the GB is not free from the influence of external factors. To be effective and sustainable, a credit delivery system also needs a supportive national policy framework for it to remain autonomous and free from political influence. National policies can make or break a GB-type replication. The GB could consider increasing the landholding requirement from less than half of an acre of land to one acre because many poor own small pieces of land. Given that about 60 per cent of rural households are eligible to join the Grameen Bank, its current membership (about 20 per cent of the eligible population) is suboptimal. Increasing the target base will enable more people to join the programme and, in the process, reduce its overhead cost.

GB's franchise has many dimensions or lines of defence against vulnerability. One dimension is that no competing moneylender or institution could entice a significant number of GB members to transfer their savings and loan relationships or hire away numerous employees of the GB. No potential competition can easily prevent GB's growth by replicating its model or by introducing a superior model. GB enjoys no statutory or administrative protection that creates its franchise, which is based solely on its operations.

No institution is immune from deterioration. Market niches exist to be eroded by competitive innovation. They have deteriorated through the complacency induced by the comfort of doing well and the reluctance to adjust to changing market conditions. However, GB has consistently fortified its franchise. Most credit programmes aimed at the poor have low interest rates and give little attention to confidence creation, resulting in losses from lending operations and a drift away from their original target in favour of more prosperous clients. GB's course, in contrast, has moved towards women and away from men, increasing its concentration on the most highly marginalized major group in Bangladeshi society. It has expended geographically rather than changing the basis definition of its target group to create more business for existing branches.

In one very important typical area of vulnerability, GB is protected within its market niche. This area is the choice of project and technology: its members select their own investment projects, in effect determining the sizes of their loans and repayment obligations. Many credit programmes promote a technology attractive to the government and donor. If the credit-supported technology is not appropriate or successful, the borrower's commitment to repay the loan is diminished. However, if a GB group member's project fails, the group is still committed to repay, and additional credit enables the borrower to try again.

Targeting primarily poorly-educated entrepreneurs may prove too costly for the GB. As the economy grows, commercial banks and other development banks could finance projects that produce similar non-farm goods on a larger and more profitable scale. The low-cost production of large-scale enterprises may drive down the profit margins of small-scale projects financed by the GB, eventually forcing them out of this sector.

GB borrowers need to be efficient and capable of diversifying into new enterprises as the economy expands. The Bank can help promote borrowers' entrepreneurial development through skill training and technology and market promotion. It can also help promote the marketing of their products by exploring and tapping potential local and export markets.

Notes

1. President William Clinton has nominated Dr Yunus for the Nobel Peace Prize.
2. A good description of the Baker-Hopkin model may be found in Hossain, 1988, pp. 20-22. See also Wahid (1993, pp. 1-8).
3. Taka is the official monetary unit of Bangladesh. One US dollar is equivalent to 40 Takas at the present exchange rate.
4. An externality exists when the decision and actions of one market participant affect the wellbeing of another without the decision maker bearing the full cost of his or her actions, or repaying the full benefits of those actions.
5. That is the main finding of Adams and Neham (1979).
6. The results of this survey were published in Rahman (1990, pp. 52-68). Also, for some details see Hasnat and Rahman (1993, pp. 69-95).

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