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Does Micro-credit Program in Bangladesh Increase Household's Ability to Deal with Economic Hardships?*

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ABSTRACT

It is often argued that micro-credit program intervention at the grassroots level increases the ability of the poor to deal with crises. This paper examines the relationship between households' involvement in micro-credit programs and their capacities to deal with economic hardships by focussing on BRAC, one of the largest micro-credit providers in Bangladesh. Using RAND data collected in one region of rural Bangladesh, the paper addresses a key question: Do micro-credit programs increase the ability of the poor to deal with crises? The findings in this paper indicate that BRAC's micro-credit program in Bangladesh may increase participating households' abilities to cope with economic hardships but further research to much more systematic information needs to be conducted about micro-credit program before conclusive results can be reached.

KEY WORDS

Micro-credit, Economic Hardships, Rural Bangladesh.

* The findings presented in this paper are taken from the author's Masters thesis, which was completed in July 2002 under the supervision of Professor Marika Vicziany in the Department of Economics, Monash University, Australia. The author is grateful to RAND for providing the MHSS data set used in this paper.

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1. Introduction

Natural disasters such as floods, river erosion, unpredictable rainfall, drought, cyclones and other disturbances adversely affect the lives of poor households in rural Bangladesh. Crop loss, damage to houses or livestock, and post disaster illness are some of the direct consequences of these natural catastrophes. It is often believed that micro-credit program¹ intervention at the grassroots level increases the ability of the poor to deal with crises. The existing evidence suggests that micro-credit programs in Bangladesh² have a positive impact on the participants with respect to material well-being, reduction in seasonal vulnerability and a better ability to deal with crises (Mustafa *et al.*, 1996; Morduch, 1998). It is argued that micro-credit programs help reduce the vulnerability of the poor by assisting them to build assets, and by providing emergency assistance during natural disasters. At the same time, it is recognised that the impact of credit programs on poverty and economic vulnerability could be enhanced by linking credit schemes with other financial interventions such as savings and insurance policies, legal education and food relief (Zaman, 1999).

¹ The definition of micro-credit that was adopted in the Microcredit Summit held in Washington, D.C., February 2–4, 1997 is that micro-credit programs extend small loans to very poor people for self-employment projects that generate income, allowing them to care for themselves and their families (Grameen Bank, 2001).

² In Bangladesh, one characteristic of the last three decades is that there has been unprecedented growth of micro-credit organisations. There are nearly 1,000 micro-credit organisations registered in Bangladesh with a total participant of around 13 million (Abed, 2000).

The Bangladesh Rural Advancement Committee (BRAC), one of the largest micro-credit providers in Bangladesh, has been operating for nearly three decades. It is also the largest development organization in the private sector in the country. The primary goal of BRAC's micro-credit programs is poverty alleviation in Bangladesh. The provision of micro-credit to the poor, along with health, education and social mobilisation interventions is one of the key strategies for BRAC achieving its mission. As of June 2000, BRAC had 3.6 million village organisation members and a total of US\$ 1,050 million had been disbursed to the borrowers as loans (Abed, 2000).

This paper examines the relationship between households' involvement in BRAC's micro-credit programs and the households' capacity to deal with economic hardships. It is hypothesised that the BRAC's credit programs contribute to increasing the participating households' abilities to cope with economic hardships. This hypothesis is tested by comparing BRAC and non-BRAC households, the latter being defined as those that did not receive loans from BRAC or any other institutional sources.³

The remainder of this paper is divided into four sections. The following section provides a brief description of study area, that is, where the data has been collected, data and analysis methods. The next section gives a brief description of the nature of household loans from BRAC during the survey period in 1996 and then, section four, presents the

³ Eligibility to join in BRAC micro-credit programs requires members to have either no land or less than half an acre of land. They also need to be between the ages of 18 to 54 years (BRAC, 2000). The definition of non-BRAC households does not exclude those that may have received loans from traditional moneylenders, friends and relatives.

results of empirical analysis. Finally, in the last section, the concluding remarks are included.

2. Materials and Methods

The data set used in this paper is obtained from the Matlab Health and Socio-economic Survey (referred to as MHSS).⁴ This survey was carried out in 1996 in Matlab, a region of rural Bangladesh. Since 1966 Matlab has become well-known for its ongoing Demographic Surveillance System operated in this location by the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). The Matlab region is around 55 kilometres south east of Dhaka, the capital of Bangladesh. The region is completely rural and consists of 149 villages, with an estimated population of 529,000 (BBS, 2000). Matlab lies in a flat deltaic plain interlinked by rivers and canals. There are few roads, so the primary means of communication is via small boats. The most common occupations are in traditional agriculture (rice and jute are the main crops) and fishing.

In the MHSS survey, the number of households that were members of BRAC village organisations and also received loans from BRAC was 108. This paper compares these 108 households with another group of 108 households who were eligible to receive BRAC loans but did not receive micro-credit either from BRAC or any other institutional source. To ensure that the two sets of 108 households are comparable, I have identified the 32 villages in which the 108 households receiving loans were located. The second set

⁴ The MHSS was a collaborative effort between RAND, the Harvard School of Public Health, the University of Pennsylvania, the University of Colorado at Boulder, Brown University, Mitra and Associates, and the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B). See Rahman *et al.* (1999) for more details of the MHSS data.

of 108 families who did not receive loans has been randomly selected from the same 32 villages which were previously mentioned. Bivariate analysis is performed to explore the relationship of program participation with the household's ability to deal with economic hardships.

3. BRAC Households and the Nature of Their Loans

This section analyses the loans that households took from BRAC during the survey period in 1996 and how these were applied. The average size of a loan at that time from BRAC was Taka 4,660 (about US\$ 112). The minimum and the maximum amounts of loans were Taka 1,000 and Taka 12,500 respectively.⁵ Typically, each sample household received loans more than two times (average being 2.2 times). The majority of households (86.1 percent) borrowed twice, whilst a minority of 9.4 percent and 4.6 percent of households borrowed three and four times respectively. The frequency of loans taken is important because it indicates about what the cumulative size of the loans may have been. The cumulative size of loans is an important variable when studying the impact of micro-credit. It should also be remembered that in 1996, BRAC had only been distributing loans in the Matlab region for approximately four years. Hence, the majority of BRAC households were taking out loans once every two years in that four-year period.

The bulk of these loans, some 54.7 percent, were invested for productive purposes such as small businesses, purchase of farm inputs, animal husbandry, purchase of rickshaws and boats. Nevertheless, a significant percentage of the loans went into 'unproductive

⁵ The MHSS survey does not provide information about household's cumulative loans. The survey only collected data on current loans in 1996.

uses' - some 45.3 percent. This large percentage is an index of the poverty of the region and also the demands on households for crisis management: 16.7 percent of loans were used to purchase household items and essential groceries, 12 percent was used for home improvement, and another 7.4 percent was used for marriages, dowry payments, funerals and medical treatments.

Having described the basic nature of the loans taken out by BRAC households, the next section turns to an exposition of the results of empirical analysis.

4. Findings

4.1 Economic Hardships

Table 1 shows that the percentage of households that faced economic hardship was higher among the BRAC group than the non-BRAC group: 54.6 percent and 43.5 percent respectively. The major crises that were reported by respondents were sickness of householders, crop loss, damage of houses or businesses, losses due to natural disaster and the death of householders (Table 2). Two dominant crises faced by both BRAC and non-BRAC households were crop loss and sickness of householders. The percentage of BRAC families that confronted crop loss and sickness of householders was 31.5 and 38.4 and the corresponding figures for non-BRAC families were 38.2 percent and 29.1 percent.

Table 1

**Number of households facing economic hardship during the previous five years by
BRAC and non-BRAC households**

BRAC	Non-BRAC
59 (54.6)	47 (43.5)

Note: Figures in parentheses indicate percentages. *Source:* Hoque, M. S. (2002), *Testing the Achievements of Micro-credit in Bangladesh: The Case of BRAC*, Unpublished M.Ec Thesis, Department of Economics, Faculty of Business and Economics, Monash University, Australia.

Table 2

**Types of economic hardships faced by BRAC and non-BRAC households (number
of incidence: multiple answers⁶)**

Types of hardships	BRAC	Non-BRAC
Sickness of householders	28 (38.4)	16 (29.1)
Crop loss	23 (31.5)	21 (38.2)
Death of householders	5 (6.9)	8 (14.6)
Damage of house/business loss due to natural disaster	7 (9.6)	6 (10.9)
Others	10 (13.7)	4 (7.3)

Note: Figures in parentheses indicate percentages. *Source:* Hoque, M. S. (2002), *Testing the Achievements of Micro-credit in Bangladesh: The Case of BRAC*, Unpublished M.Ec (Honours) Thesis, Department of Economics, Faculty of Business and Economics, Monash University, Australia.

4.2 Coping Strategies

With regard to the capacity of households to cope with crises, the study found that more BRAC than non-BRAC households in crisis borrowed money – namely 20.0 percent and 10.1 percent respectively (Table 3). Asset selling was another coping strategy, but in this case more non-BRAC than BRAC households resorted to asset selling. This suggests that non-BRAC households had less capacity to cope with crises from their current income and earnings than the BRAC households. On the other hand, double the percentage of

⁶ In case of some households, more than one strategy had been employed to overcome one specific economic hardship.

BRAC households used their own savings to cope with crises compared with non-BRAC households (7.1 percent compared to 4.3 percent). This could be because the savings of non-BRAC households were also less than those of BRAC households. This meant that lacking savings, non-BRAC households resorted to asset sales. Finally, the analysis in this paper indicated that a higher percentage of BRAC than non-BRAC households sought help from relatives, friends or employers during crises. overall, these different variables reveal that stronger safety nets existed for BRAC than non-BRAC households.

Table 3

Coping strategy employed by BRAC and non-BRAC households (number: multiple responses)

Coping strategies	BRAC	Non-BRAC
Householder's extra job	27 (31.8)	23 (33.3)
Borrowing	17 (20.0)	7 (10.1)
Asset selling	5 (5.9)	8 (11.6)
Reducing expenses	4 (4.7)	10 (14.5)
Help from relative/friend/employer	9 (10.6)	3 (4.3)
Using savings	6 (7.1)	3 (4.3)
No measure	18 (21.2)	15 (21.7)

Notes: Figures in parentheses indicate percentages. *Source:* Hoque, M. S. (2002), *Testing the Achievements of Micro-credit in Bangladesh: The Case of BRAC*, Unpublished M.Ec (Honours) Thesis, Department of Economics, Faculty of Business and Economics, Monash University, Australia.

5. Summary and Concluding Remarks

The results of this study show that BRAC households were more able to obtain loans during times of crisis than non-BRAC households. For example, twice as many BRAC households borrowed money during crisis times than non-BRAC households: 20.0 percent compared to 10.1 percent respectively. Moreover, BRAC households were able to

resort to household savings, which is ‘a positive coping mechanism’ for dealing with crises. Non-BRAC households, by contrast, more commonly resorted to asset selling –‘a negative coping mechanism’. For instance, almost double the percentage of BRAC households used their own savings to cope with crisis than non-BRAC households: 7.1 percent and 4.3 percent respectively.

On the other hand, one should not exaggerate the differences between how BRAC and non-BRAC households dealt with crises. In both cases, about a third of households simply took on extra work, whilst another fifth were unable to do anything at all. In other words, even over half of BRAC households were too poor to cope with crises by applying any economic solutions other than more work. Future research on micro-credit in Bangladesh should, perhaps, focus on the limitations of poverty rather than proceed on the assumption that access to micro-credit by itself will help the poor to cope with crises. Important questions also need to be asked about the kind of extra work that is available to poor rural households and how they can accommodate the pressure for extra work when their poverty level may already be strained. Questions to be asked include the kind of work available for these families, the pay rates and the conditions.

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