



**Center for Microfinance and Development
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**Does the Participation in the Microcredit Programs Contribute to the
Development of Women Entrepreneurship at the Household Level?
Experience from Bangladesh**

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Abstract:

The study intends to assess the impact of the participation in the microcredit programs in Bangladesh on women entrepreneurship development at the household level. The main objective is to see whether the participation in the microcredit programs help participating women to start their own businesses and to create employment for other people. The analysis is based on a household-level survey of 920 (N=920) households. The sample households have been selected randomly from the participants of top three microfinance institutions, Grameen Bank, BRAC and ASA, in Bangladesh. The results indicate that the participation in the microcredit programs does not promote women entrepreneurship at the household level. But, the results indicate that the same participation significantly increases capital of existing businesses of participating households.

Keywords: Microcredit, Women Entrepreneurship Development, Bangladesh

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Does the Participation in the Microcredit Programs Contribute to the Development of Women Entrepreneurship at the Household Level? Experience from Bangladesh

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Introduction

Microcredit is essentially the dispersion of small collateral-free loans to poor people in order to foster income generation and poverty reduction through enhancing self-employment. Since its introduction in Bangladesh in the seventies, the use of micro-credit as a tool for poverty alleviation has become widely accepted through out the world in developing as well as many developed countries. In this paper I propose to evaluate the effectiveness of microcredit programs of three major microfinance institutions (MFIs) in Bangladesh-ASA, BRAC and Grameen Bank-in promoting women entrepreneurship development at the household level. The women entrepreneurship development has been defined as the ability of women to start businesses.

The remainder of this paper is organized as follows. Section two is a brief discussion of the microfinance sector in Bangladesh. Section three outlines who participates in the microcredit programs of microfinance institutions. Section four describes the estimation strategy of this paper. The survey design is discussed in section five. Results are presented in section six. Conclusions follow in section seven.

Microfinance Sector in Bangladesh

Bangladesh has experienced an exceptionally rapid growth in the microfinance sector since 1990. Prior to 1990, only a handful of organizations were operating in the microcredit sector. Following the innovation and success of the Grameen Bank in

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providing small collateral free loans to poor people for income generating activities, many NGOs adopted micro credit technology and started mobilizing poor people for micro credit activities. Some of these NGOs experimented with Grameen's micro credit delivery system at the beginning and gradually they developed their own micro credit delivery system (For example, BRAC and ASA). Currently, apart from Grameen Bank, more than 1000 MFIs are operating micro credit programs and many more new ones are joining the micro credit revolution in Bangladesh.

<<<< Table 1 About Here >>>>

Although more than 1000 MFIs are providing micro credit in Bangladesh, the contribution by a vast majority of them toward total annual loans disbursement is insignificant. Based on the CDF statistics, 2004, three top MFIs – Grameen Bank, BRAC and ASA - contributed more than seventy percent to total membership, total net savings, cumulative loans disbursement and loans outstanding (Table 1). BRAC is the largest MFI in terms of membership mobilization. Until December 2003, BRAC had mobilized 4.1 million members, which was 21.3 percent of total. But in terms of three other indicators, cumulative disbursement, loan outstanding and net savings, the Grameen Bank was the largest. The Grameen Bank had cumulative loan disbursement of Taka² 191.44 billion, loan outstanding of Tk 16.82 billion and net member savings of Tk 13.31 billion. The cumulative loan disbursement of the Grameen Bank constituted approximately 41 percent of total, where as it was approximately 21 percent for BRAC. In 2003, the loan outstanding and net savings of the Grameen Bank were 31 percent and 45 percent of total respectively. In the same year, BRAC contributed 21.3 percent of total loan outstanding and 21.4 of total net savings. ASA in relation to these two MFIs is quite small in terms of the indicators as stated above. The share of ASA in total loans disbursement was 15.2 percent. ASA at the end of December 2003 had mobilized 2.3 million members.

² The currency of Bangladesh is called Taka. In short, it is written as Tk. The current exchange rate is 1USD = 69.50Tk.

Who Participates in Microcredit Programs?

Membership of the microfinance institutions, especially the Grameen Bank, in Bangladesh is limited to people who own less than half an acre of land, are not from the same family, have similar socio-economic status and are from same area. Khandker, Khalily and Khan (1995) argue that these criteria of group membership are important for better functioning of microcredit programs. The restriction of less than half an acre is imposed to restrict participation of rich people in the program. Morduch (1998) and Zaman (1997) raised question about the strict application of these criteria, especially land ownership of less than half an acre. Zaman found miss targeting of 28% in case of *BRAC*, which means that 28 percent borrowers had more than half an acre of land. Morduch found miss targeting of 30 percent in case of the Grameen Bank, *BRAC*, and *RD-12*³.

There is no doubt about the success of microfinance institutions, especially the Grameen Bank, in reaching poor people [Amin, Rai and Topa, (1999)]. Amin, Rai and Topa (1999) found that a poor household is more likely to join a microcredit program than a non-poor household. But some researchers, for example, Hulme and Mosely (1997), Hashemi (1997), and Rahman (1997), raised questions about the success of microcredit organizations in reaching the poorest of poor, who are also known as hard-core poor. Hulme and Mosely (1997) argue that the benefits of microcredit programs are unevenly distributed and for that reason, hard-core poor are largely left out. Hashemi (1997) finds that such microcredit programs like the Grameen Bank have failed to effectively target hard-core poor. Rahman (1997) found some problems from the demand side, which excluded hard-core poor from microcredit programs.

In Bangladesh, formal sector financial institutions are gender biased. Although some banks have opened branches exclusively for women, those branches mainly collect deposits and provide a small number of loans. Prior to the Grameen Bank, women

³ *RD-12* was a microcredit program operated by the governmental Department, Bangladesh Rural Development Board (*BRDB*).

constituted only less than 1 percent of total number of borrowers [Yunus (1998)]. This exclusion of women from the services of formal sector financial institutions motivated Mohammad Yunus, the founder of the Grameen Bank and the Nobel Peace Prize 2006 winner, to give preference to women in the Grameen Bank, especially for providing microcredit loans. As he writes [Yunus (1998)]:

“In Bangladesh, if a woman, even a rich woman, wants to borrow money from a bank, the manager will ask her, ‘Did you discuss this with your husband?’ And if she answers, ‘Yes’, the manager will say, ‘Is he supportive of your proposal?’ If the answer is still, ‘Yes’, he will say, ‘would you please bring your husband along so that we can discuss it with him?’

But no manager would ever dream of asking a prospective male borrower whether he discussed the idea of a loan with his wife, and whether he would like to bring his wife along to discuss the proposal. Even suggesting this would be an insult!

Having complained for so long that banks discriminated against women, I wanted at least 50 per cent of our projects’ (i.e. the Grameen Bank Project) borrowers to be women.”

Therefore, Professor Yunus wanted to have at least 50 per cent of the Grameen Banks’ members’ women. Staff and officials of the Grameen Bank have found women more motivated and compliant with rules and procedures. They also have found women more consistent in their concern for the welfare of the family. Women invest their loans properly and utilize income for the welfare of the members of the family [Hashemi and Schuler (1997); Rahman, (1999); Goetz and Sen Gupta (1996), Pit and Khandker (1997)]. These reasons motivated staff and officials of the Grameen Bank to give women preference. As of February 1997, 94 per cent of 2.07 million Grameen Banks’ members were women. Helen Todd (1997) argues that during the mid-eighties the poor loan recovery performance of male centers⁴ compared to women centers⁵ encouraged the

⁴Grameen Bank centres with male members only,

⁵Grameen Bank centres with women members only,

Grameen Bank to give women preference for its microcredit activities. At the beginning of the Grameen Bank's evolution as a microcredit organization, it encouraged women to join the program to maintain gender balance. Currently, it encourages men to join its microcredit program as the gender balance among members favor women.

Estimation Strategy

Impact of any development intervention like microcredit can be estimated using the following empirical specification:

$$Y_{ij} = H_{ij}\alpha_y + L_j\theta_y + M_{ij}\beta_y + \mu_{ij} \quad (1)$$

where Y_{ij} is the outcome of the household i in the village j on which we want to measure the impact.; H_{ij} is the vector of household characteristics; L_j is the vector of village level characteristics; M_{ij} is vector of microcredit variables; α_y , θ_y and β_y are the parameters to be estimated; and μ_{ij} represents the unmeasured household and village characteristics that determine outcomes. Consider another equation as follows:

$$M_{ij} = H_{ij}\alpha_y + L_j\theta_y + \varepsilon_{ij} \quad (2)$$

where M_{ij} , H_{ij} and L_j are same as those in equation 1; and ε_{ij} represents the unmeasured household and village characteristics that determine decision to participate in the microfinance programs or the decision to borrow the amount of money from the microcredit programs. The second equation determines the extent of influence of different household and village characteristics on the decision to participate in the microfinance programs or the decision to borrow the amount of money from the microcredit programs.

The estimations will be biased if μ_{ij} and ε_{ij} are correlated. Two types of selection biases make these two terms correlated: (1) non-random selection of households to participate in microfinance program and (2) non-random selection of places to establish branches of microfinance institutions.

MFIs all over the world accept those people as members who fulfill some criteria. This process generates the first type of two biases that I have mentioned above. Besides the selection criteria of MFIs, the self-selection of program participants is also another source of the first bias. Since it is expected that households with greater entrepreneurial capability are more likely to join the program, this may also bias the econometric estimation of program benefits. The non-random program placement also creates biases in estimating benefits of the program. For example, if microcredit programs are implemented in those areas which have more business opportunities or have better communication infrastructure or have more dynamic leaders or are poorer, then such criteria for selecting places for program implementation create biases in estimating program benefits.

On the basis of the above arguments, we can say that a comparison between a group of program participants, who are self selected, and a group of non-participants, who are not self-selected, would generate a bias in estimating the impact of microcredit on outcome variables. In the same way, the estimates will be biased if program group members are selected from a place that has been non-randomly selected by MFIs on the basis of some characteristics and control group members from a place without those characteristics. On the basis of the above understanding; the present study uses an alternative survey method [Coleman (1999); Chowdhury (2000); Chowdhury et al (2005)] than is commonly employed. I selected new members, who just received their first loan, as members of the comparison group. Since, the comparison group members are also self-selected like the program members, the bias arising from self-selection in estimating program benefits thus disappears. The households of both groups were from the same location. Therefore, the bias, which arises from non-random program placement, is also avoided from the sample. Now, the program impacts can be estimated through using a single equation:

$$Y_{ij} = H_{ij}\alpha_y + L_j\theta_y + M_{ij}\beta_y + v_{ij} \quad (3)$$

where, Y_{ij} , H_{ij} , and M_{ij} , are defined as above; and V_i represents the error of the model that arises from the household and village level variables that are not included in the model. In the equation 3, M_{ij} , is the microcredit variable of household j in the area i . The variables included in the vector of household characteristics (H_{ij}) are occupation, education and the demographic composition of households. The variables included in the vector of village-level characteristics (L_{ij}) are existence and distance of school, market, and road in the village where sample respondents reside. The model 3 has been estimated using the logit and ordinary least square (OLS) regression techniques.

Data

Four-stage random sampling technique had been applied in selecting program households and comparison households. In the first stage, one district had been randomly selected out of 64 districts in Bangladesh. In the second stage of random sampling, three branches of the Grameen Bank, one branch of BRAC and one branch of ASA had been selected randomly for data collection purpose. From the Grameen Bank two branches, which were more than eight years old, were randomly selected for selecting program group households and the other one, which was a newly established branch, was randomly selected for selecting comparison group households. The branches that were selected from BRAC and ASA were also more than eight years old. From these two branches, the program group households were randomly selected. In the third stage, the study randomly selected forty centers⁶ from the comparison branch and one hundred and eighty centers from four program branches. In the fourth and final stage, the study randomly selected four members from each of the program branch centre and seven members from each of the comparison branch centre.

⁶ Each branch consists of 50-60 centers, each centre consists of 8 groups and each group consists of 5 members.

In total, the study collected information from two hundred and eighty new member households of the comparison branch. However, during the examination of the completed questionnaires of comparison households, it was found that some questionnaires contained illogical as well as incomplete answers. The study dropped these questionnaires. This left the study with two hundred and sixty five useable questionnaires from the comparison branch. From the program branches, the study collected data from seven hundred and twenty old member households which constitute the program group. After discarding questionnaires with incomplete and illogical answers, the study finally found six hundred and forty six filled in questionnaires useable. In total, the study had nine hundred and twenty (N=920) useable questionnaires from all program and comparison branches. During the survey, it had been found that all participants in the microcredit programs from these nine hundred and twenty households were women. The survey was conducted from January to May 1999.

Results

The assessment of the impact of the participation in the microcredit programs of the microfinance institutions on women entrepreneurship development at the household level has been assessed through using descriptive statistics and applying multivariate techniques. The logit regression has been used to assess the impact of the participation in microcredit programs on women entrepreneurship development at the household level. The Ordinary Least Square (OLS) technique has been used to appraise the impact of the participation in microcredit programs on total business capital of existing businesses of participating households. In the logit model, the dependent variable is the employment status of microcredit program members, whom all are women, in the households and it is a dummy variable coded '1' if the member is engaged in business activities and coded '0' if not. In the OLS model, the dependent variable is the total business capital of existing businesses of households. The business capital has been measured in Bangladeshi Taka.

On the right hand side of both models, a dummy variable (pcg) that represents program as well as comparison group households has been included to represent microcredit program

participation. It is coded '1' if the household belongs to the programs group and '0' if not. The coefficient of this dummy variable represents the impact of the participation in microcredit programs of microfinance institutions on women entrepreneurship development at the household level and also on the capital of existing businesses. Apart from this microfinance participation variable, some other variables have also been included as control variables are: existence of a primary school (pschool) and a secondary school in the village (sschool); availability of electricity in the village (electricity); distance of the household from the nearest market (dmarket), the nearest paved road (road), and the nearest commercial bank branch (bank); eight variables on the number of household members in different age groups (tmm6b, tfm6b, tmm625, tfm625, tmm2660, tfm2660, tmm60a, and tfm60a), two variables that are associated with the education level of the household head and microcredit program member (hedu and medu); one variable that is related to the age of the household head (hage); and finally two variables related to the level of endowments of the household (pass and hsland).

<<<< Table 2 About Here >>>>

Table 2 presents the current employment status of the microcredit program members in the households of the program as well as comparison group. It indicates that around five percent microcredit program members in the households of the program group are involved in business compared to around six percent microcredit program members in the comparison group households. These results indicate that microfinance members in the program group households are not better of compared to microfinance members in the comparison group. The chi square test indicates that program group households are not different from comparison group households in terms of the employment status of the microcredit program members. These results illustrate that the participation in microcredit programs of the microfinance institutions does not help the participating women members to start business activities.

<<<< Table 3 About Here >>>>

Table 3 describes the employment status of the microcredit program members of the program group households before and after joining microcredit programs. It shows that around three percent members were engaged in business activities before joining microcredit programs. The same engagement in the business activities increased to around five percent after joining microcredit programs. The participation in the microcredit programs enabled only twenty three microcredit program members, which represent two percent of total number of microcredit program members in the program group, to start businesses. In the program group, ninety percent microcredit program members were housewives before joining microcredit programs. After joining a microcredit programs, twenty two microcredit program members were successful in changing their status from housewife to business woman, small scale poultry firm owner and others. The chi square test indicates that the employment status of the microcredit program members after joining microcredit programs is not significantly different from that of before joining microcredit programs.

<<<< Table 5 About Here >>>>

Table 5 presents the results of the logit model. The coefficient of the variable (pcg) that represents the participation in microcredit programs has a negative sign. But, it is not statistically significant. The negative sign indicates that the participation in a microcredit program reduces the probability of starting a business by a microcredit program member. The reason that might be working behind this result is that microcredit program members are women and the socio-cultural conditions are not conducive to starting businesses by participating women. Apart from this variable, seven variables have come out as statistically significant. These are: household head's age, household head's education, total male members in the age group of 5 to 15, total male members in the age group of 40 to 59, total male members in the age group of 60 and above, availability of electricity in the village, and distance of the household from the nearest bank.

The probability of starting a business by a microcredit program member increases with the increase in the age of the household head. This result is logical in the sense that the

income and endowment of the household increase with the increase in age of the household head, and it enables the microcredit program member to start a business. More household male members in the age group of 5 to 15 reduce the probability of starting a business by the microcredit program member of a household. The reason is that male members in the age group of 5 to 15 are unemployed and school going. The higher number of members in this age category in a household indicates that the income and endowment level of that household is lower compared to a household that has lesser number of members in the same age category. For this reason, the higher number male members in the age category of 5 to 15 reduce the probability of starting a business by the microcredit program member of a household. Similarly, the higher number of male members in the age group of 40 to 59, and 60 and above in a household reduce the probability of starting a business by the microcredit program member of a household. A household with more male members in the age group of 40 to 59, and 60 and above has more income earning people and is richer than a household that has lesser number of male members in these two age categories. In a male dominated society like Bangladesh, where the participation of women in business activities in rural areas is socially discouraged, it is difficult for a woman in a household that has enough number of male members to earn bread and butter for all members of the household to start a business. The availability of electricity in a village increases the chance of starting a business by a microcredit program member. The availability of electricity indicates that the infrastructural facilities are better in the locality. It also indicates that the chance of becoming successful in business in the locality is higher. For this reason, the availability of electricity in the village significantly positively influences the decision to start a business by a microcredit program member. The distance of the nearest formal sector bank branch significantly negatively influences the decision to start a business by a microcredit program member. The longer distance of the bank reduces the chance of getting a loan from the bank and it also reduces the probability of starting a business by a woman as it is considered that the availability of the required fund is one of the main determinants of starting a business.

The results from the above tables show that the participation in the microcredit programs of microfinance institutions does not help participating women members to start businesses. But the question is what do they do with their borrowed money? Does it go to the existing businesses that are operated by male members of the household? The answer of this question has been sought through examining the capital of existing businesses of program as well as comparison households. The amount of capital of existing businesses of program households before and after joining microcredit programs has also been examined.

<<<< Table 6 About Here >>>>

Table 6 presents the average business capital of program as well as comparison households. The average business capital of program group households and comparison group households are Taka fourteen thousand three hundred and Taka five thousand five hundred respectively. The average capital of program households is one hundred and sixty percent higher than that of comparison households. The t test results show that the average capital of program households is significantly higher than that of comparison households.

<<<< Table 7 About Here >>>>

Table 7 demonstrates the average business capital of program households before and after joining microcredit programs. The average business capital of program households before joining microcredit programs was Taka five thousand seven hundred. On an average, this amount increased to Taka fourteen thousand three hundred after joining microcredit programs. It indicates that the participation in microcredit programs enabled program households to increase their capital base by one hundred and fifty percent. The t test results also indicate that the average business capital of program households after joining microcredit programs is significantly higher than before joining business capital.

<<<< Table 8 About Here >>>>

Table 8 illustrates regression results of the model that determines the determinants of total business capital of program as well as comparison households. The variable (pcg) that represents microcredit program participation has a positive sign and it is statistically significant. It indicates that the participation in a microcredit program significantly increases total business capital of households. Besides this variable, five variables are statistically significant. These variables are: the education level of the household head, total female members in the age category of 16 to 24, total amount of productive assets, distance of the household from the nearest paved road, and distance of the household from the nearest formal sector bank branch.

The education level of the household head significantly increases the total business capital of a household. The higher level of education of the household head signifies that the household has also the higher level of income and endowment. And it also signifies that the household has the ability to invest more in business. The total number of female members in the age category of 16 to 24 in the household significantly increases the total amount of business capital of the household. The reason is that female members in this age category are usually school and college going and they also contribute significantly in the household works, like agricultural work, rearing poultry and livestock. These contributions help male members of households to spend more time on business activities outside the household. The total amount of productive assets significantly increases the total amount of business capital of households. The higher amount of productive assets of a household indicates that that household has more capital to invest in business activities. The distance of a household from the nearest paved road increases business capital of that household significantly. The longer distance of a household from the nearest paved road indicates that the household is away from the better infrastructural facilities in the locality. For this reason, a household from an area which does not have the necessary business friendly infrastructure requires more capital to invest to make a business viable compared to a household that comes from an area with better business friendly infrastructure. The distance of the household from the nearest bank branch has negative impact on the total amount of business capital. It is logical in the sense that the longer

distance indicates the lesser access to loans from the bank. This is why the households that are away from a bank branch have lower amount of business capital.

Conclusion

This paper intends to assess the impact of the participation in the microcredit programs of microfinance institutions in Bangladesh on women entrepreneurship development at the household level. The women entrepreneurship development has been defined as the ability of a woman to start a business. The descriptive statistics and multivariate techniques have been used to achieve the objective of the paper. The analysis is based on a sample survey of nine hundred and twenty households in rural areas in Bangladesh.

On the basis of the descriptive statistics and results from multivariate techniques, this paper concludes that the participation of households in microcredit programs does not promote women entrepreneurship at the household level. But, it also concludes that the participation of households in microcredit programs significantly increases capital of existing businesses that are operated by male members of households.

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Table 1
Microfinance in Bangladesh (in Million)

| MFIs | Cumulative Microcredit Disbursement | Microcredit Outstanding | Savings (Net) | Number of Members |
|----------------|-------------------------------------|-------------------------|---------------|-------------------|
| Grameen Bank | 191,440.4 | 16,823.7 | 13,306.6 | 3.1 |
| % | 40.5 | 31.1 | 45.3 | 21.3 |
| BRAC | 107310.2 | 11493.2 | 6285.9 | 4.1 |
| % | 22.7 | 21.3 | 21.4 | 28.0 |
| ASA | 72009.4 | 10023.7 | 2804.8 | 2.3 |
| % | 15.2 | 18.6 | 9.6 | 15.7 |
| Proshika | 27165.9 | 4623.3 | 1601.4 | 2.8 |
| % | 5.8 | 8.6 | 5.5 | 19.1 |
| Other 599 MFIs | 74350.5 | 11068.3 | 5343.7 | 2.34 |
| % | 15.7 | 20.5 | 18.2 | 16.0 |
| Total | 472276.4 | 54032.2 | 29342.4 | 14.7 |

Source: CDF (2004)

Table 2
Employment Status of MFI Members

| Employment Status | Program Group | Comparison Group | Total |
|-------------------|----------------|------------------|----------------|
| Business | 34 (5.3%) | 17 (6.4%) | 51 (5.6%) |
| Others | 612 (94.7%) | 248 (93.6%) | 860 (94.4%) |
| Total | 646 | 256 | 911 |
| Pearson Chi2 | 0.4718 | | |
| Pr | 0.492 | | |

Table 3
Employment Status of MFI Members of the Program Group

| Employment Status | Before Membership | After Membership |
|-----------------------|-------------------|------------------|
| Business | 21 (3.2%) | 34 (5.2%) |
| Housewife and Poultry | 4 (0.6%) | 11 (1.7%) |
| Housewife | 591 (89.8%) | 569 (88.1%) |
| Others | 30 (4.6%) | 32 (5%) |
| Total | 646 | 646 |
| Pearson Chi2 | 3.12 | |
| Pr | 0.37 | |

Table 4
Variables Used in the Analysis

| Variables | Labels | Mean | Std. Dev. |
|-------------|---|----------|-----------|
| empbusm | Employment Status of MFI Member | 0.056 | - |
| tcap | Total Business Capital | 11720.58 | 25137.93 |
| pcg | Program and Comparison Group HHs (Dummy) | 0.709 | - |
| hage | HH head's age | 39.48 | 10.02 |
| hedu | HH head's total years of schooling | 2.98 | 3.94 |
| medu | Total years of schooling of microcredit program member | 1.884 | 3.11 |
| hhmfu5 | Total Female Members Under 5 | 0.256 | 0.49 |
| hhmmu5 | Total Male Members Under 5 | 0.261 | 0.50 |
| tfm5t15 | Total number of HH female members between 5 to 15 | 0.908 | 0.99 |
| tmm5t15 | Total number of HH male members between 5 to 15 | 0.969 | 0.96 |
| tfm16t24 | Total number of HH female members between 16 to 24 | 0.335 | 0.55 |
| tmm16t24 | Total number of HH male members between 16 to 24 | 0.422 | 0.69 |
| tfm25t40 | Total number of HH female members between 25 to 40 | 0.651 | 0.48 |
| tmm25t40 | Total number of HH male members between 25 to 40 | 0.604 | 0.59 |
| tfm40t59 | Total number of HH female members between 40 to 59 | 0.241 | 0.43 |
| tmm40t59 | Total number of HH male members between 40 to 59 | 0.456 | 0.50 |
| tfm60a | Total number of HH female members between 60 and above | 0.047 | 0.21 |
| tmm60a | Total number of HH male members between 60 and above | 0.072 | 0.26 |
| pass | Productive Assets (BM) | 9432.84 | 18635.16 |
| hsland | Total Area of Homestead Land (BM) | 7.044 | 7.65 |
| pschool | Existence of Primary School in the Village (Dummy) | 0.802 | - |
| school | Existence of Higher Secondary School in the Village (Dummy) | 0.295 | - |
| electricity | Existence of electricity in the Village (Dummy) | 0.802 | - |
| dmarket | Distance of the Nearest Market | 0.850 | 0.76 |
| droad_ | Distance of the Nearest Pakka Road | 0.764 | 0.88 |
| dbank | Distance of the Nearest Bank from the House | 1.67 | 1.35 |

Table 5
Determinants of the Employment Status (Business) of an MFI Member

| Variable | Labels | Coefficeints |
|--------------|---|--------------|
| pcg | Program and Comparison Group HHs (Dummy) | -0.0163 |
| hage | HH head's age | 0.0891*** |
| hedu | HH head's total years of schooling | 0.0795* |
| medu | Total years of schooling of microcredit program member | -0.0735 |
| hhmfu5 | Total Female Members Under 5 | -0.287 |
| hhmmu5 | Total Male Members Under 5 | -0.395 |
| tfm5t15 | Total number of HH female members between 5 to 15 | -0.143 |
| tmm5t15 | Total number of HH male members between 5 to 15 | -0.446** |
| tfm16t24 | Total number of HH female members between 16 to 24 | 0.214 |
| tmm16t24 | Total number of HH male members between 16 to 24 | 0.107 |
| tfm25t40 | Total number of HH female members between 25 to 40 | 0.756 |
| tmm25t40 | Total number of HH male members between 25 to 40 | -0.247 |
| tfm40t59 | Total number of HH female members between 40 to 59 | -0.109 |
| tmm40t59 | Total number of HH male members between 40 to 59 | -1.291** |
| tmm60a | Total number of HH male members between 60 and above | -1.706* |
| pass | Productive Assets (BM) | -0.0000098 |
| hsland | Total Area of Homestead Land (BM) | -0.0112 |
| pschool | Existence of Primary School in the Village (Dummy) | -0.577 |
| school | Existence of Higher Secondary School in the Village (Dummy) | 0.00621 |
| electricity | Existence of electricity in the Village (Dummy) | 0.931* |
| dmarket | Distance of the Nearest Market | -0.131 |
| droad_ | Distance of the Nearest Paved Road | -0.242 |
| dbank | Distance of the Nearest Bank from the House | -0.297* |
| Constant | | -5.111*** |
| Observations | | 863 |
| LR Chi2(13) | | 31.66 |
| Prob > Chi2 | | 0.0027 |
| Pseudo R2 | | 0.0807 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6
Business Capital

| Group | Mean | Stad. Dev |
|------------|-----------|-----------|
| Comparison | 5,477.86 | 16,683.43 |
| Program | 14,297.46 | 27,491.12 |
| t | 4.47 | |
| pr | 0.000 | |

Table 7
Business Capital of Program Group Households

| Group | Mean | Stad. Dev |
|-------------------|-----------|-----------|
| Before Membership | 5,676.16 | 16,559.12 |
| After Membership | 14,297.46 | 27,491.12 |
| t | 11.31 | |
| pr | 0.000 | |

Table 8
Determinants of Business Capital of the Household

| Variable | Labels | Coefficients |
|--------------|---|--------------|
| pcg | Program and Comparison Group HHs (Dummy) | 7780*** |
| hage | HH head's age | 151.1 |
| hedu | HH head's total years of schooling | 443.4* |
| medu | Total years of schooling of microcredit program member | 129.0 |
| hhmfu5 | Total Female Members Under 5 | 1893 |
| hhmmu5 | Total Male Members Under 5 | -451.2 |
| tfm5t15 | Total number of HH female members between 5 to 15 | 559.6 |
| tmm5t15 | Total number of HH male members between 5 to 15 | 591.7 |
| tfm16t24 | Total number of HH female members between 16 to 24 | 3167* |
| tmm16t24 | Total number of HH male members between 16 to 24 | 302.8 |
| tfm25t40 | Total number of HH female members between 25 to 40 | 1136 |
| tmm25t40 | Total number of HH male members between 25 to 40 | 2894 |
| tfm40t59 | Total number of HH female members between 40 to 59 | -3154 |
| tmm40t59 | Total number of HH male members between 40 to 59 | 1663 |
| tfm60a | Total number of HH female members between 60 and above | -4041 |
| tmm60a | Total number of HH male members between 60 and above | -1883 |
| pass | Productive Assets (BM) | 0.426*** |
| hsland | Total Area of Homestead Land (BM) | 125.3 |
| pschool | Existence of Primary School in the Village (Dummy) | 1627 |
| school | Existence of Higher Secondary School in the Village (Dummy) | 232.9 |
| electricity | Existence of electricity in the Village (Dummy) | 3059 |
| dmarket | Distance of the Nearest Market | -1220 |
| droad_ | Distance of the Nearest Paved Road | 2210** |
| dbank | Distance of the Nearest Bank from the House | -2596*** |
| Constant | | -11111* |
| Observations | | 904 |
| R-squared | | 0.18 |

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1