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**Factors Contributing Toward Poverty Alleviation: Evidence from Grameen Bank**

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**Abstract**

This study examines the impact of microfinance on poverty within the framework of the Grameen Bank of Bangladesh. It is specifically interested in identifying the factors that contribute much toward poverty alleviation. A household-level survey was conducted among the members of the Grameen Bank. The members were asked to mention the factors that contribute much toward poverty alleviation. A logistic regression analysis was used to find out the relative importance of those factors. The results show that poverty alleviation is done strongly by the newly attained ability to spend on housing, land purchase and clothing through microfinance participation. The duration of membership also plays an important role in this regard. Although microfinance helps to alleviate poverty by addressing various factors causing poverty, the importance of the factors are different to the members of the Grameen Bank. The identification of the factors according to their importance toward poverty alleviation is expected to help the micro finance providers to attach more value to them.

**Keywords:** Microfinance; Poverty alleviation; Grameen Bank

**1. Introduction**

Microfinance is the provision of financial services including loans, savings, remittances and insurance for the poor. The poor who have little access to formal financial systems might benefit from these services. Microfinance institutions target the poor mainly women to alleviate poverty. The Grameen Bank, the pioneer of microfinance, tries to reduce poverty by providing microfinance to poor rural women of Bangladesh. The coverage of its poverty reduction depends largely on how poverty is defined. Poverty, at its very basic level, is a condition characterized by the lack of food and other fundamental needs. Microfinance is a means to alleviate poverty by allowing the poor to have access to loans, the lack of which might cause poverty. The Grameen

Bank gives loans to the poor for generating income, so they can bring prosperity to their lives. It encourages the members to save money on regular basis. It also attempts to improve the condition of housing while also making its members conscious about education, health and sanitation.

The Grameen Bank's attempt at alleviating poverty through microfinance has been studied by many scholars (Chowdhury, Ghosh and Wright, 2005; Hossain, 1988 and 2002; Hulme and Mosley, 1996; Khnadker, 2001; Khandker and Samad, 2013; Pitt, Khandker and Cartwright, 2006; Rahman, 2002). They examined the impact of microfinance on poverty alleviation with respect mainly to income, consumption, employment, capital accumulation and ownership of assets and others. Some studies investigated the effect of microfinance on poverty with regards to objective and subjective poverty where the former is based on the costs associated with obtaining minimum daily calories and the latter is related to the perception of the households about poverty. Microfinance might help the poor by addressing various aspects of poverty, but all the aspects are not equally important to the beneficiaries. Hence it is important to know the factors that contribute much toward poverty alleviation. And the factors need to be identified by asking the members who are the beneficiaries of microfinance interventions. While microfinance and poverty alleviation is a popular subject of discussion and debate, academic research on this topic is almost absent where the factors with their relative importance to alleviate poverty are taken into consideration. Literature thus indicates that an important question, still unresolved empirically, is how the members of the Grameen Bank put relative importance to various factors that might cause poverty. Until we understand the importance of the factors toward poverty alleviation, an important aspect of the contribution of microfinance will remain unexplored. Hence, the main objective of this study is to enhance knowledge in this regard.

The study shows that the Grameen's microfinance helps to alleviate poverty. However, the perception of a member about the factors contributing toward poverty alleviation is strongly determined by the newly attained ability to spend on housing, land purchase and clothing through microfinance interventions. The duration of membership also plays an important role in this regard. The remainder of this paper is structured as follows. The second section reviews literature on microfinance and poverty. Section three outlines sample survey. The fourth section describes statistical model used to evaluate the impact of microfinance. Section five presents

results and discussion. The final section makes concluding remarks.

## 2. Literature Review

As poverty results from multiplicity of causes, alleviating poverty thus means addressing the causes of poverty. Alleviating poverty is about increasing the ability of the poor to meet the basic needs even during the time when their income is squeezed. The following literature reviews attempt to demonstrate the impact of microfinance on poverty alleviation from different perspectives.

It is observed that life in rural Bangladesh is constantly vulnerable to income erosion as a result of contingencies that may be brought about by structural reasons, sickness, death of an earning member of a family, and other unforeseen events (Sharif, 1997). Johnson and Rogaly (1997) argue that if poverty is understood as low levels of annual income per household, reducing poverty is about raising average income levels. Microfinance is an important intervention for fighting poverty. It helps the poor to increase income and build assets so as to fight poverty and reduce vulnerability. According to Khandker (2011) microfinance facilitates production and consumption. Small loans from a microfinance institution generate employment for the poor and women. With an easy access to microfinance programs the poor regularly save to build financial and physical capital. He also argues that easy loan repayments terms help the poor by levelling off consumption, by building assets and net worth, and by helping the unemployed to become self-employed (Khandker, 2001).

In a study, Harper (2003) claims that loans help to increase the income and asset position of the borrowers. The accumulation of savings contributes to improved standards of living. It serves to capitalize on the productive activities which sustain the family and thereby enhancing income of the family. The experience shows that many relatively poor households can save in quantity when given attractive saving vehicles, suggesting that one way to address the borrowing constraints faced by poor households may be to address saving constraints instead of addressing just the credit side (Morduch, 1999). There is evidence that microcredit can help poor families to break out of the poverty cycle through the accumulation of assets and improvement in human capital (Mahmud, 2004). Providing microfinance can give poor people the means to protect their livelihoods against shocks as well as to build up and diversify—also a means of protecting—their livelihood activities by investing loan capital (Johnson and Rogaly, 1997).

Alleviating poverty starts with creating food security for the poor. Food security, at the household level, is defined in its most basic form as access, by all people at all times, to the food needed for a healthy life (Zeller and Richard, 2002). The poor face different shocks such as illness or death of primary income earner, theft of livestock, crop failure due to flood, drought and heavy rainfall. These shocks may lead to loss of income and household welfare and reduction in consumption which further increases the extent of poverty. The poor households with the support of microfinance are less vulnerable through sustainable income-generating activities (Zaman, 2004). In his study, Hossain (2002) found that the income in member households was forty-three percent higher than in target group households in control villages and twenty-eight percent higher than in non-participating households in the Grameen villages. Rahman (2002) believes that the Grameen Bank loan is expected to raise the level of income for the loanee and thus raise the total income of the family as a whole.

The increase in the consumption of clothing indicates an improvement in the level of affluence. Rahman (Rahman, 2002) argues that consumption of clothing and expenditure on them can reflect the improvement in the standard of consumption, more than reflected by food consumption or number of meals. In her empirical study on Grameen Bank, she found that expenditure on clothing is significantly higher for the loanee groups as compared to the control groups.

Poverty also results from the lack of housing which as Hossain and Sen (1992) mention is a good indicator of one's standard of living. However, the poor often lack good housing facilities and they are bound to live in dilapidated houses. The Grameen Bank helps the poor to own habitable houses by granting them housing loans. The borrowers can also make additional income by using general loans which helps them to build houses. Uddin (2012) found a positive relationship between microfinance participation and housing condition. He claims that the rise in income through profitable use of loans and the availability of housing loan increase a borrower's ability to invest in housing.

Education tends to have a significant impact on increasing rural incomes, and hence, reduces rural poverty. The spread of education is less among the rural people as many of them fail to understand the true value of education. Krogh, Hansen, Wendt and Elkjaer (2009) claim that persuasion, advocacy and awareness raising will often be required in combination with scholarships or other financial support to motivate families to send their daughters to school,

even though in most cases, education systems do not discriminate between boys and girls in terms of access. Yunus (2004) affirms the Grameen Bank encourages the borrowers to enroll their children in school, stay in school, and do well in school. It also gives scholarships for higher education to the children of its borrowers. Helen Todd (cited in Wright, 2000) found the higher levels of schooling of the Grameen children compared to the children of non-members.

The poor often live in impoverished health conditions which cause less physical ability to work. Less work means less income that results in a person's less ability to see a doctor. Poor health thus indicates a dimension of poverty and it may further deteriorate the extent of poverty. Nanda (2009) studied women's participation in rural credit programs and demand for formal health care where he identified a positive impact of women's participation on their decision to seek formal health care. The study also found a positive relation between economic empowerment through access and control over resources and reduction of health problems.

The survey of literature suggests that microfinance is an important means for alleviating poverty by addressing the basic causes of poverty. Since no previous studies identified the factors that contribute much toward poverty alleviation, this study is expected to fill the vacuum of our knowledge in this regard and contribute to the existing literature.

### **3. Sample Survey**

The data for the study were collected from primary source. A questionnaire survey was conducted during the period of April-May 2011 in the district of Barisal, Bangladesh. The sample was drawn from the households who were the members of the Grameen Bank. A sample of three hundred households was selected on a non-random basis. The main criterion for selection was the willingness of the respondents for us to investigate their membership period, housing condition, land ownership, expenditure on clothing and others. A household is defined as a person or a group of persons who live in the same house, have common cooking and eating arrangements and acknowledge one adult member as the head of the house. The study used personal interviews through questionnaire. The respondents were interviewed in their village homes at their convenience so that they could pay proper attention to the questions.

Table 1 presents the socio-economic profile of the households by age, educational attainment, marital status, family size, earning members and occupation. Age distribution shows only 6 percent of the respondents come from the lowest age group (20–24) and 7 percent from

the highest age group (55 and above). The age structure of the members implies that the poor belong to various age groups and every group ranging from 25 to 54 has a significant representation.

**Table 1: Sample characteristics**

Variable	Frequency	Percent
<b>1. Age distribution</b>		
20 – 25	18	6
25 – 30	50	17
30 – 35	48	16
35 – 40	55	18
40 – 45	41	14
45 – 50	55	18
50 & above	33	11
Total	300	100
<b>2. Educational attainment</b>		
No education	91	31
Primary	96	32
Secondary	73	24
Higher secondary	40	13
Total	300	100
<b>3. Marital status</b>		
Unmarried	3	1
Married	266	89
Divorced & others	31	10
Total	300	100
<b>4. Family members</b>		
2 – 3	54	18
4 – 5	168	56
6 – 7	72	24
8 – 9	6	2
Total	300	100
<b>5. Earning members</b>		
One	213	71
Two	73	24
Three	14	5
Total	300	100
<b>6. Occupation</b>		
Farmer	19	6
Day labourer	102	34
Others	179	60
Total	300	100

Source: Author's survey

The educational attainment indicates that 31 percent of the respondents did not have any formal education. Among those who attained some education shows about one in every three respondents has primary education; about one in every four respondents has secondary education. Only 13 percent have higher secondary education. The high concentration of members with low level of education indicates a high association between illiteracy and poverty because a fairly educated woman is more likely to find a job elsewhere which may be a better option to fight poverty than joining this bank.

**Table 2 Frequency distribution**

Variable	Frequency	Percent
<b>Membership period (year)</b>		
02 – 04	143	47.7
05 – 07	59	19.7
08 – 10	49	16.3
11 – 13	14	4.7
14 – 20	24	8.0
21 – 27	11	3.7
Total	300	100

Source: Author's survey

The marital status of respondents shows that most of them, 89 percent, are married. Ten percent respondents belong to divorced and others group. The number of respondents in the unmarried group was almost insignificant. The marital status indicates that married women have to support their families more than others and thus their number is highest of all respondents. The divorced, widowed or abandoned belong to a disadvantaged group and they have to work hard to support their families. However, unmarried women remain mostly dependent on their parents and thus their rate of participation in microfinance is lowest.

The same table shows most of the respondents have family members between four and five. About one in every four respondents has family members between six and seven. It is only 18 percent of the respondents who have family members between two and three. The family size is an important consideration because a poor but large family generally takes much time to come out of poverty. It is assumed that the larger the family size, the higher the extent of poverty. The present sample shows that most of the respondents, 82 percent, have family members between

four and nine.

The number of earning members illustrates that most of the families, 71 percent, have only one earning member and 24 percent respondents have two earning members. The patterns of family size and earning members indicate that most of the poor families have a small number of earning members to feed a large number of members. The occupation shows that only 6 percent of the respondents are farmers, 34 percent day labourers and the rest depend on informal sectors.

Table 2 shows the frequency distribution of membership period. About 48 percent of the respondents have the membership period between two and four years. Thirty-six percent have the membership period between five and ten years. The others have the membership period more than ten years. The patterns of membership period indicate that in recent times the poor are joining the Grameen Bank in large numbers while at the initial stage of its operations, the Grameen Bank did not have many people to join.

#### 4. Statistical Model

For logistic regression analysis, the dependent variable was considered as the perception of the members regarding improvement in economic conditions through microfinance participation. The hypothesis posed to the data was that the likelihood that the improvement in overall economic conditions of the members is strongly related to their housing condition, land ownership, ability to spend on clothing and period of membership. The outcome variable is predicted in the form of the probability of success and valued between 1 and 0. That is 1 for a member who made improvement in economic conditions through microfinance participation and 0 for a member who is yet to make so. If an estimated probability value of a member is equal to  $\geq 0.5$ , the member is classified as a successful member who made improvement in economic conditions. The model is estimated by relating whether the Grameen Bank's members made overall improvement in economic condition to various factors: *house* is how the existing house was built (1 = partially or fully by loans, 0 = not by loans); *land* is whether a borrower was able to buy some land fully or partially by the profit of the loans (1 = yes, 0 = no); *clothing* is attaining the ability to spend on clothing (1 = yes, 0 = no); and *membership* is the period of membership. A four-predictor population logistic regression model to be estimated in this study took the following form:

$$\text{logit}\left(\frac{P}{I-P}\right) = \beta_0 + \beta_1 \text{house}_i + \beta_2 \text{land}_i + \beta_3 \text{clothing}_i + \beta_4 \text{membership}_i$$

In this model,  $\text{logit}\left(\frac{P}{I-P}\right)$  is the log of the *odds ratio* that the outcome variable is 1;  $P$  is

the probability of event coded with 1 and  $\beta_0$  is the constant of the model. The parameters associated with *house*, *land*, *clothing*, and *membership* are  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  respectively. The null hypothesis of the model states that all  $\beta$ 's are equal to zero. The rejection of this hypothesis indicates that at least one  $\beta$  does not equal zero in the population, meaning the logistic regression equation can predict the probability of the outcome better than the mean of the dependent variable. The interpretations of the results are shown using the odds ratios of the predictors. The population parameters are estimated by the following sample model:

$$\text{logit}\left(\frac{\hat{P}}{I-\hat{P}}\right) = \hat{\beta}_0 + \hat{\beta}_1 \text{house}_i + \hat{\beta}_2 \text{land}_i + \hat{\beta}_3 \text{clothing}_i + \hat{\beta}_4 \text{membership}_i$$

## 5. Results and Analysis

This section shows the empirical results on the relationship between microfinance participation and improvement in economic conditions. A comparison between those who perceive that they made considerable improvement in economic conditions and those who were yet to make so indicates that housing, land, clothing and membership play significant roles in bringing improvement in economic conditions.

A brief description of the data to estimate the model shows that 161 members (54 percent) said they made considerable improvement in economic conditions after joining the Grameen Bank. In contrast, 139 members (46 percent) said they were yet to make such improvement. The predictor variables indicate that 59 percent of members built their houses either by housing loans or by the profit of loans. Only 38 percent of members were able to buy some land mainly from the profit of loans and 55 percent asserted that they attained the ability to buy daily clothing as well as seasonal clothing. The membership period ranged from 2 years to 26 years, with an average of 6.71 years and standard deviation 5.16 years.

The estimated model that was fitted to the data to test the research hypotheses that the

likelihood that improvement in economic conditions of the members is strongly related to *housing, land, clothing* and *membership* shows the following results:

$$\text{logit}\left(\frac{\hat{P}}{I - \hat{P}}\right) = -4.929 + 2.909\text{house} + 1.711\text{land} + 1.504\text{clothing} + 0.367\text{membership}$$

According to the model, the log of the odds of a member able to improve her overall economic conditions is positively related to all predictors. Each coefficient is statistically different from zero at a very small significance level. Controlling for other variables, there is strong evidence that one unit increase of a predictor will have a positive impact on attaining improved economic conditions. In other words, the higher the value of a predictor, the more likely it is that a member will move toward improved economic conditions when other variables are controlled. The results also show that *house* has the highest impact on economic improvement followed by *land, clothing* and *membership*.

**Table 3 Logistic regression analysis**

<b>Table 3.1 Classification table</b>						
			Predicted			
			Improved economic condition?		Percentage correct	
Observed			Yes	No		
Step 0	Improved economic condition?	Yes	161	0	100.0	
		No	139	0	.0	
Overall percentage					53.7	

a. Constant is included in the model; b. The cut value is .500.

The odds ratio is calculated by using the regression coefficient of the predictor as the exponent. Controlling for other variables in the model, the  $Exp(\beta)$  value of *house* indicates when a member built a house by the help of microfinance, the odds of making overall improvement in economic conditions becomes 18.338 ( $= e^{2.909}$ ; Table 3.7) times greater than the odds for a member who is yet to build so. In other words, the odds ratio indicates that a household is 18.338 times more likely to improve her economic condition as compared with one

who does not have a livable house and also could not build a new one after joining the Grameen Bank. A comparison within the predictors indicates that the size effect of *house* is more than 3 times as important as *land* and 4 times as important as *clothing* while *land* is about 4 times as important as *membership*.

A house is badly needed for the poor because they not only live houses but also carry out some business activities there. The house ownership is an indication of self-worth which helps to increase status in society. The Grameen Bank helps the poor to build their houses as quickly as possible. Its social development program reminds the members of the fact that they will not live in dilapidated houses, and that they will repair their houses and work toward constructing new houses at the earliest opportunity. A member can take out a housing loan for constructing a new house. These initiatives thus motivate the poor to construct better houses.

**Table 3.2 Variables in the equation table**

		$\beta$	S.E.	Wald	df	Sig.	$Exp(\beta)$
Step 0	Constant	.147	.116	1.610	1	.204	1.158

**Table 3.3 Variables not in the equation table**

		Score	df	Sig.
Step 0	House	141.536	1	.000
	Land	57.611	1	.000
	Clothing	60.603	1	.000
	Membership	99.726	1	.000
	Overall Statistics	184.810	4	.000

**Table 3.4 Omnibus tests of model coefficients**

		Chi-square	df	Sig.
Step 1	Step	249.841	4	.000
	Block	249.841	4	.000

**Table 3.4 Omnibus tests of model coefficients**

		Chi-square	df	Sig.
Step 1	Step	249.841	4	.000
	Block	249.841	4	.000
	Model	249.841	4	.000

**Table 3.5 Model summary**

	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
Step 1	164.433	.565	.755

**Table 3.6 Results of logistic regression analysis**

Predictor	$\beta$	SE $\beta$	Wald	df	Sig.	$Exp(\beta)$ (Odds ratio)
House	2.909	.468	38.599	1	.000	18.338
Land	1.711	.456	14.074	1	.000	5.534
Clothing	1.504	.421	12.779	1	.000	4.500
Membership	.367	.099	13.795	1	.000	1.443
Constant	-4.929	.594	68.863	1	.000	.007

**Table 3.7 Observed and predicted frequencies with the cutoff of 0.50**

Observed	Predicted		% correct
	Yes	No	
Yes	142	19	88.2
No	16	123	88.5
Overall % correct			88.3

*Note.* Sensitivity =  $142/(142+19)\% = 88.2\%$ . Specificity =  $123/(16+123)\% = 88.5\%$ .

False positive =  $16/(16+142)\% = 10.13\%$ . False negative =  $19/(19+123)\% = 13.38\%$ .

Controlling other variables, the  $Exp(\beta)$  value of *land* confirms that the members who bought some land partially or fully by the profit of loans are 5.534 times more likely to improve their economic conditions compared with those who could not buy land the same way. The poor tend to own land because it increases their strength in society. The Grameen Bank encourages the members to increase their investment in land which can help to generate additional income. A land can be used to grow food grains or it can be leased-out. The microfinance participation helps the members to generate more income which in turn allows them to invest on land.

Relating *clothing* to economic improvement indicates the odds of making such improvement increases from 1.0 to 4.50 ( $= e^{1.504}$ ; Table 3.7) for a member who attained the ability to spend on the household clothing requirements when other variables are held constant. The results imply the members attained the ability to spend more on clothing. The higher ability to spend on clothing is associated with microfinance participation.

The poor borrowers engage in various income-generating activities after they join the Grameen Bank. They also try to maintain additional sources of income. At the same time, they save as much money as they could every week. All these activities allow them to attain the ability to spend more on clothing. It is reasonable to believe that a member spends more on clothing after making the required spending on food.

The  $Exp(\beta)$  value of *membership* confirms that for each unit (one year) increase on membership, the odds of making improvement increases from 1.0 to 1.443 ( $= e^{.367}$ ). If membership period increases by one year the odds ratio is 1.443 times as large and thus a household with one year more period of membership is 1.443 more times likely to improve her economic condition. The Grameen Bank removes the liquidity constraints of the poor by giving them loans. It also encourages them to save money on weekly basis so that they can create some financial capital for the future. The members try to save money as much as possible because the amount of a loan is sometimes tied with the amount of saving i.e. the amount of a loan is dependent on how much saving a member has with the Grameen Bank. The higher membership period allows the members to save more as well as to take loans many times. As a result, the members who have long attachment with the Grameen Bank can attain more economic progress than the members with short attachment.

The logistic model provides a better fit to the data because it demonstrates an

improvement over the constant-only model, which serves as a good baseline with no predictors. Step 0 presents the results with only the constant included before any coefficients (for present model, *house*, *land*, *clothing*, and *membership*). The logistic regression compares this model with a model including all the predictors to determine whether the latter model is more appropriate. The table labeled variables not in the equation tells us whether each predictor improves the model (Table 3.3). The table shows overall statistics is 184.81 which is significant at  $p < .000$ . This statistics tells us that coefficients for the variables not in the model are significantly different from zero. The variables in this table with their respective scores and significant levels show their potential contribution to the model. All variables have significant score statistics at  $p < .000$ , indicating that they could potentially make a contribution to the model. In addition, omnibus test of model coefficients in Table 3.4 also suggests the inclusion of these predictors will increase the model's predictive power. A test of the full model against the constant-only model is statistically significant, implying that the predictors as a set reliably distinguished between those who improved their economic condition and those who could not (*chi square* 249.84,  $p < .000$  with  $df = 4$ ).

The significance of individual regression coefficients can be tested by using the Wald chi-square statistics and associated probabilities. It is found that all the predictors included in the model make a significant contribution to prediction and all the four predictors are at  $p < .01$ . The test of constant suggests it be included in the model as it is also statistically significant at 1 percent level. The goodness-of-fit of a model measures how strongly predictors are related with the outcome variable (Table 3.5). The *Nagelkerke's R-square* shows there is a moderately strong relationship between prediction and grouping. The predictors in the model explain 76 percent of the variation in the outcome variable.

The predicted probabilities of the events and non-events, presented in Table 3.7, show the model makes a correct prediction of both events and non-events to a significant extent. The proportion of correctly classified events, which is alternatively known as sensitivity is 88.2 percent. The proportion of correctly classified non-events also known as specificity is 88.5 percent. False positive and false negative rates are 10.13 percent and 13.38 percent respectively. False positive is the proportion of observations misclassified as events over all of those classified as events and false negative is the proportion of observations misclassified as non-events over all of those classified as non-events. The model can now predict with 88.3 percent

accuracy from the original 53.7 percent in the constant-only model (Table 3.1), indicating a considerable improvement in the overall correct prediction. Therefore, it is now evident from the regression results that the predictors of the model reliably distinguish between those who made economic improvement and those who could not.

The result also shows that 46 percent of the members could not make notable improvements in their lives. However, this finding does not weaken the positive effect of microfinance on poverty as long as the following issues are considered. It is necessary to have some length of membership period in order to gain substantial benefit of microfinance because the long-term membership period allows a borrower to have access to more as well as large loans. And the profitable use of those loans leads to improved economic conditions. But such membership period is missing for many in the sample. The sample shows that 14 percent of the respondents have membership period of only two years, 19 percent three years and about 15 percent four years. As poverty alleviation is a long-term process, such length of membership was not enough to realize the benefit of microfinance. The extent of benefit is also determined by family size and number of earning member per family. Among the respondents, 26 percent have at least six family members and 71 percent have only one earning member for the family.

## **6. Concluding Remarks**

The present study clearly shows that microfinance is an important means for alleviating poverty. The Grameen Bank reduces poverty by extending microfinance to poor rural women who were usually excluded from the formal lending institutions. The poor members took loans from the Grameen Bank, used them efficiently and generated income. The rise in income led to an increased spending on food and clothing. It also helped them to spend on housing and land purchase. The Grameen members took small loans first and gradually moved toward large loans over the period.

The Grameen Bank through microfinance addresses different factors that might aggravate poverty. However, the findings imply that these factors are not equally important to the beneficiaries of the Grameen Bank. The perception about the factors which reduce poverty is strongly determined by the ability to spend on housing, land purchase and clothing. The duration of membership also helps to alleviate poverty. The members who built houses either by loans or by the profit of loans are 18 times more likely to improve their economic conditions than those

who are yet to do the same. A member who bought a piece of land by joining the Grameen Bank is about 6 times more likely to move toward economic improvement than one who could not buy so. Attaining the ability to spend on clothing is also an important indicator of economic improvement because people generally spend more on clothing after making the required spending on food. The members who attained the ability to spend on clothing are about 5 times more likely to make economic progress than those who are yet to attain it. The identification of these factors with their importance to poverty alleviation improves our knowledge. It will also help the micro financiers to attach more value to them.

Although the study is expected to contribute to the literature recognizing the factors contributing toward poverty alleviation, the present study suffers from some limitations. The variables considered might not be appropriate proxy indicators for assessing the impact of microfinance. Some benefits can easily be stated as concept but difficult to measure in practice. For example, a borrower might attain the ability to spend more on food and clothing, but it might not reveal their quality. When a loan is mixed with personal funds for making investment, measuring the benefit of the loan becomes very difficult. Therefore, the impact assessment by addressing these issues is an interesting avenue for further research.

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