Effect of Microcredit on Agricultural Output: Evidence from Rural Bangladesh

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Abstract

This research reveals the effect of microcredit on agricultural output produced by small farmers of Khulna district in Bangladesh. Rice production is used as proxy of agricultural output as most of the farmers are engaged in rice production in Bangladesh. The sample size was restricted to a total of 80 farmers out of which 40 farmers have been selected from each of the microcredit receiving and non-receiving groups, on the basis of random sampling technique. Cobb-Douglas production function was used to estimate the effect of various inputs on farm output (rice production). A multiple regression model was also used to measure the effect of the socio-economic determinants affecting farm output. To check socio-economic homogeneity between microcredit beneficiary and non-beneficiary group, t-ratio and z-score were used. Result of the production function shows that marginal effect of capital and labor are positive but less than one which are statistically significant at 1% and 5% level respectively. Microcredit beneficiaries produce 15% more rice than that of non-beneficiary group which is also statistically significant at 1% level. Among socio-economic determinants, experience and fulltime farming affect farm output positively when it is estimated jointly. These two variables are also significant in microcredit receiving category. Poor farmers face high interest rate and consume microcredit as they get credit prior to stating farming. They are to start repaying loan after the next week of receiving but get output after cropping period which is about 6 months. Thus they get less benefit as credit mechanism doesn't incorporate gestation period. So, credit system should be well developed incorporating gestation period to reflect aspirations of the small farmers that benefit them.

Key Words: Small farmers, Microcredit, Farm output, Marginal effect, Gestation period.

Introduction

Agriculture is the single largest producing sector of Bangladesh that accounts for 20.01% of GDP and 6.3% of export earnings (GOB, 2010). In rural area, economic activities are mostly based on direct participation in agriculture, especially crop cultivation which is the most important segment of agriculture for generating rural employment. Rice is the staple food of Bangladesh where small farmers grow it for both subsistence and commercial purposes. Generally small farmers cultivate in their own land, rented land and even go for share cropping system. Lack of financial capability and pressure from poverty force them to take microcredit. Consequently, poor farmers may be perpetually trapped in poverty due to lack of fund for purchasing inputs and productive investment in farming. Farmers cannot enter into the formal credit system due to mortgage, high formality and unavailability of bank branch in the remote area. So, when required farmers go for informal credit system where interest is much higher than formal credit system. Microfinance institutions offer financial services to farmers without mortgage and doing less procedural formalities as compared to formal banking channel in one hand and at a reasonable interest rate as compared to informal

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credit system on the other hand, which make the microcredit system much popular among small farmers of Bangladesh. They think that microcredit may contribute to increase productivity by enabling them to purchase necessary inputs for agricultural production. It may also help to finance those activities which add value to agricultural output. In case of microcredit, generally loan repayments start immediately after receiving monetary amount but farmers get output at the end of the crop year. Sometime loan is used in other purposes also. Still these small farmers are receiving microcredit and it is a growing question that how far they are getting benefitted in terms of final output produced by receiving microcredit having no gestation period.

Objectives of the Study

The main objective of the study was to reveal the effect of microcredit on rice production in the study area. Accordingly, it investigated output differentials between beneficiaries and non-beneficiaries of microcredit. In addition to that, this study tried to detect role of socio-economic determinants in rice production. More over it also examined whether those factors act differently in microcredit receiving and non-receiving groups.

Literature Review

Agricultural credit is a crucial part in development of agriculture as many small farmers cannot afford cost of production for poverty. Thus total production decreases in compared to optimum level. In many countries, poor farmers cannot cultivate their land due to financial constraints. Hence, microcredit benefits them in many respects. Based on an African study, Osei-Mensah and Adams (2009) suggested that state must continue support to ensure access in cheap and adequate capital especially in the form of concessionary loans to support non-agricultural micro enterprises. Hence microcredit can fill the gap. If farmers get loan at high time then, they can use inputs efficiently and can increase productivity also. After getting involved, this credit bridges the gap between income and expenditure for poor people (Abedullah, Khalid, & Kouser, 2009; Khan et al., 2011). Poverty or insignificant amount of loan limits the efficiency of microfinance service of the poor farmers who are engaged in agricultural and live-stock that need time to produce any result (Rahman & Hossain, 1995). The credit not only improves the agriculture productivity but also raises the purchasing power of the farmer (Sidhu, Vatta, & Kaur, 2008; Muhammad, 2003; Abedullah, Khalid, & Kouser, 2009).

Ibrahim and Bauer (2013) concluded that agricultural investment should be increased for ensuring efficient and sustainable technology to increase farm profit and microcredit fill the gap between the actual fund of the farmer for production and the required agricultural investment. Wadud (2013) found that microcredit, farmers education and experience help to utilise input more efficiently in the cultivation process in Bangladesh. Thus farmers can reduce food insecurity in the family level. Khandker (1998) found that microcredit could be source of self employment and higher consumption, wealth and assest of the benfeciary group. The credit not only improves the agriculture productivity but also raises the purchasing power of the farmer (Abedullah, Khalid, & Kouser, 2009) and leads from subsistence to cash economy (Bhulmall, 2000). Crop productivity can be increased by poor farmers through providing available agricultural inputs to them (Javed et al., 2006). Hence microcredit helps to avail and to use inputs on time in agro-farm. Based on a study upon Bangladesh, Islam (2011) showed that microfinance borrowers were more technically efficient (TE) than their non-borrowing counterparts.

Islam, Bäckman, and Sumelius (2011) examined that the mean profit efficiency of the microfinance borrowers is higher than that of non-borrowers. In a study (Sumelius, Islam, & Sipilainen, 2011) it is revealed that mean profit efficiency of the microfinance borrowers and

non-borrowers were estimated as 68% and 52% respectively. In this regard, Saleem and Ali-Jan (2011) suggested that farmers with access to microfinance are significantly more efficient than their non-borrowing counterparts and also revealed that land fragmentation, family size, household wealth, on farm-training and off–farm income share were the main determinants of inefficiency in the farm productivity.

Onoja, Ibrahim, and Achike (2009) econometrically analyzed the causality between credit and farm technical efficiencies and revealed that when family labor and farm credit size increase, output also increases. They also found that hired labor, quantity of inorganic fertilizer, quantity of seed planted affect agricultural output negatively. Land size also gave a negative coefficient implying that land expansion may not bring marginal returns given the way they are combining their resources. Nosiru (2010) used Cobb-Douglas production function to analyze microcredit and agriculture productivity and found that land size and capital are important variables affecting agricultural output positively among microcredit non-beneficiaries. Land also has a positive effect on output among microcredit beneficiaries.

Islam (2011) also suggested ensuring access to microfinance to increase TE in agricultural production. Unfortunately, small farmers cannot get access for bank credit in many countries because of mortgage, high formality, lengthy procedure and unavailability of concerned institutes at farmers' close position. Hence, microfinance emerged as a noble substitute for informal credit and is considered to be a powerful instrument for poverty alleviation among people (Morduch & Haley, 2002). Yet, conventional approaches to agricultural finance from development banks have been difficult as commercial banks have shrieked due to perceived risks and costs (Miller, 2011). Girabi and Mwakaje (2013) concluded that lack of information, inadequate credit supply and high interest limit small farmers' access to microfinance in Tanzania. There are many non-institutional sources of credit provider like local money lender. Malik, Mushtaq, and Gill (1989) proved that institutional sources of credit play better role than non-institutional sources for farm sector development. Though recently, some microfinance institutions have come forward to assist the farmers, their terms to repay the credit may not congenial for poor farmers. Shah et al. (2008) finds positive realtionship between credit and productivity and suggested that governemnt should patronise microcredit for poor farmers as procedures for obtaining credit from typical providers are complex and is attainable at an high interest rate.

But poor farmers don't get expected benefit from receiving microcredit as providers are mostly profit oriented. Interest charges on informal loans constitute a major drain on the current income of the small farmers, which depress their living standard and make them perpetually indebted (Bhaduri, 1973). Most microcredit providers emphasis on high recovery and create pressure on receiver. They cannot afford installments and thus poor farmers recycles loan to repay existing or previous loan. The high repayment rate, repeated borrowing and low dropout rate indicate a dependency on microcredit programs rather than an attraction to successful microcredit programs on the part of poor borrower (Rahman, 1999). Sometimes farmers get loan prior to production period. If those are consumed, reduces investable amount. Fayaz et al. (2006) showed, on overall basis beneficiaries' farmer utilizes 78.84% of the amount of credit for the actual purpose. Many think tanks have emphasized on proper utilization of credit in the farm activities. Sidhu, Vatta, and Kaur (2008) noticed, only due to proper utilization of credits, income of the respondent can be increased significantly. In most cases, loan collection mechanism is also problematic as those don't incorporate the provision of gestation period. The supply of microcredit to small and marginal farmers needs to be supported by the provision of extension services, marketing and storage facilities. These services can be provided by microcredit institutions themselves and also by the relevant government departments (Tenaw & Islam, 2009).

Methods and Materials

Study Area and Sampling Technique

The main study objective was to show the effect of receiving microcredit in agriculture sector of Khulna district of Bangladesh. The study was concentrated on rice cultivators as it is the most common farming in this region. The study technically targets small farmers whose cultivable land (both self owned and rented) is less than 5 *bigha*[5] and are engaged in cultivation. In general, they are mostly associated with microcredit also. The study followed a multistage sampling technique. Out of 9 upazilas of Khulna district, *Paikgacha* upazila was picked out. In the second stage, 1 union named *Raruli* was selected out of 10 unions of the *Paikgacha* upazila. In the *Raruli* union, there are 13 villages, out of which 2 villages - *Raruli* and *Banka* were purposively selected since small rice cultivators were most common in these villages. In order to find the effectiveness of the microcredit in agriculture sector, the authors considered two groups of farmers namely microcredit beneficiaries and non-beneficiaries and 40 farmers from each group were selected randomly that cover about 20% of the total farmers of the two villages. The farmers were selected through random sampling and a structured interview schedule method containing both closed and open-ended questions was used as the research instrument to collect relevant information from the respondents. The survey was carried out during March to April, 2012.

Methods

This study analyzed the effect of microcredit on farm output level using multiple regression model. Apart from microcredit, authors investigated some other explanatory variables that affect farm out. To detect the absolute effect of microcredit, authors detected the average symmetry level of other explanatory variables between microcredit beneficiary and non-beneficiary groups. In this regard t-ratio (two-group mean comparison test) was estimated for ratio-scale variables and z-test (two-group proportional test) was performed for dichotomous variables. Some descriptive statistics were also used to analyse the microcredit related issues of the beneficiary group.

Model Specification

Estimation of Production Function:

Cobb-Douglas production function was used to assess marginal productivity of input for rice production in *Paikgacha* upazila. In this production function, only three inputs i.e. land, labor and capital were used as explanatory variable. Finally, a dummy variable (microcredit receiver = 1, otherwise = 0) was used to estimate the effect of microcredit on rice production. The regression model using log-linear form of Cobb-Douglas production function was formed as:

$$\ln Q = \ln \beta_0 + \beta_1 lnX_1 + \beta_2 lnX_2 + \beta_3 lnX_3 + \beta_4 D + u \quad ----------(1)$$

Where, Q = output (in *mound*[6]) ; X_1 = land (in *bigha*); X_2 = labor (man days); X_3 = capital (costs in BDT[7] incurred for seed, fertilizer, irrigation, pesticide, tillage, plantation and harvesting) and D = dummy variable for microcredit availability (microcredit receiver = 1, otherwise = 0) in rice production.

[5] 1 bigha = 0.3306 acre

[6] 1 mound = 37.32410 kg

[7] BDT = Official currency of Bangladesh (1 USD = 80 BDT approx.)

Estimation of Socio-economic Determinants of Farm Output

The multiple regression model was used again to estimate the effect of only socio-economic determinants on farm output assuming that other determinants and/or inputs used in the production process are held constant. Amusa, Enete, and Okon (2011) considered age, household size, education, farm size as explanatory variables to estimate their effect on cocoyam production in Nigeria. The study incorporated these variables as explanatory variable as it is well established that they affect farm output. Moreover, nature of farming, farming experience, training, and number of visit by agriculture officer were also included in the model. Three different regression were used separately for microcredit receiving group, non-receiving group and for combined (both) group, to check if those variables affect differently in different groups.

For non-beneficiary group the model is:

$$Q = \gamma_0 + \gamma_1 X_1 + \gamma_2 X_2 + \gamma_3 X_3 + \gamma_4 X_4 + \gamma_5 X_5 + \gamma_6 X_6 + \gamma_7 X_7 + \gamma_8 X_8 + u ------(2)$$

Here, Q = output (in *mound*); X_1= age X_2= sex (dummy: male = 1, female = 0); X_3= education (years of schooling); X_4= nature of farming (dummy: full time = 1, otherwise= 0) ; X_5= farming experience (years); X_6 = household size (number); X_7= training (training received = 1, otherwise= 0); X_8= visit by agriculture officer (number).

For beneficiary group the model is:

$$Q = \theta_0 + \theta_1 X_1 + \theta_2 X_2 + \theta_3 X_3 + \theta_4 X_4 + \theta_5 X_5 + \theta_6 X_6 + \theta_7 X_7 + \theta_8 X_8 + \theta_9 X_9 + u ----(3)$$

Here, Q = output (in *mound*); X_1= age X_2= sex (dummy: male = 1, female = 0); X_3= education (years of schooling); X_4= nature of farming (dummy: full time = 1, otherwise= 0); X_5= farming experience (years); X_6 = household size (number); X_7= training (training received = 1, otherwise= 0); X_8= visit by agriculture officer (number); X_9= amount of credit (BDT in thousands).

For both microcredit beneficiary and non-beneficiary group the model is:

$$Q = \delta_0 + \delta_1 X_1 + \delta_2 X_2 + \delta_3 X_3 + \delta_4 X_4 + \delta_5 X_5 + \delta_6 X_6 + \delta_7 X_7 + \delta_8 X_8 + \delta_9 X_9 + u ----(3)$$

Here, Q = output (in *mound*); X_1= age X_2= sex (dummy: male = 1, female = 0); X_3= education (years of schooling); X_4= nature of farming (dummy: full time = 1, otherwise= 0) ; X_5= farming experience (years); X_6 = household size (number); X_7= training (training received = 1, otherwise= 0); X_8= visit by agriculture officer (number); X_9= MC Dummy (dummy: microcredit beneficiary = 1, otherwise= 0).

Results and Discussion

The study finds that on an average, microcredit receiving farmers have higher age, higher male farmers, higher education level, higher farming experience, higher labor employment and higher output in compared to the group of non-receiving farmers. On the other hand, on an average, non-receiving farmers have higher female farmers, higher household size, higher land holding and higher cost of production than other category. Agriculture officer visits more in non-beneficiary group. This group is relatively new in starting cultivation also. Table no. 1 shows the mean value and standard deviation of different explanatory variables. It is found that average years of schooling are 6.98 and 7.48 for microcredit non-receiving and receiving group respectively. Average age of the whole respondent is about 40 years and average farming experience is about 12 years for non-receiving group and it is about 13 years for the credit receiving category.

Table No. 1: Descriptive statistics of explanatory variables

Variables	Receiver of microcredit		Non-receiver of microcredit		t-ratio
	Mean	Std. Dev.	Mean	Std. Dev.	
Age	41.88	5.47	39.88	5.47	-1.54
Year of schooling	7.48	2.08	6.98	2.08	-0.95
Year of starting cultivation	1998.63	5.51	2000.13	5.51	1.09
Farming experience	13.38	5.51	11.88	5.51	-1.09
Household size	5.05	1.28	5.48	1.28	1.15
Land	2.56	0.77	2.60	0.77	0.22
Labor	40.93	14.18	40.65	14.18	0.09
Capital (total cost)	7961.65	2650.01	8134.33	2650.01	0.28
Output (*mound* per *bigha*)	44.18	9.97	38.83	9.97	-2.02**
Visit by agriculture officer	3.18	1.30	3.25	1.30	0.26

Note: ** indicate significant at 5% ($p<0.05$) level.

Source: Authors compilation based on field survey, 2012

From result of t-ratio, it is evident that there is no statistically significant difference between microcredit receiver and microcredit non-receiver group with respect to major inputs and other socio-economic variables. But there is difference in output level between two groups which is statistically significant at 5% level of significance. Here, average output of microcredit receiving farmers is higher than that of non-receiving farmers. So, there is quest to know that how far microcredit affects output level.

Table No. 2: Summary of two group proportion test

Particulars	Receiver of microcredit	Non-receiver of microcredit	z-Value
Nature of farming (fulltime /total number of the category)	3/40	2/40	-0.46
Training received or not (received / total number of the category)	9/40	11/40	0.52

Source: Authors compilation based on field survey, 2012

It is evident from table no. 2 that full time farmers are less in number in compared to the part-time category. The number of full time farmer is 5 out of 80. Accordingly, part time farmers are much more dominant (75 farmers out of 80) in the study area. The table also shows that most of the farmers did not receive any training in any stage of the farming level although average farming experiences certifies that both groups are engaged in cultivation more than 11 years (see table no. 1). The study found homogeneity between groups in both cases of nature of farming (full time or part-time) and training (received or not).

Result of Production Function

Production function was estimated to reveal the effect of microcredit on rice production in the study area. Table no. 3 shows the result of the estimated production.

Table No. 3: Result of production function

Variables	Coefficient	Standard. Error	t- value	p–value
ln X_1 (land)	-0.260	0.273	-0.95	0.344
ln X_2 (labor)	0.453	0.193	2.35	0.021**
ln X_3 (capital)	0.402	0.141	2.84	0.006***
MC Dummy	0.160	0.047	3.44	0.001***
Constant	-1.401	1.296	-1.09	0.281
N= 80; R^2 = 0 .56; Adj- R^2 = 0 .53; and F = 23.47				

Note: *** and ** indicate significant at 1% ($p<0.01$) and at 5% ($p<0.05$) level respectively.

Source: Authors compilation based on field survey, 2012

The regression result shows that labor and capital affect output positively which is statistically significant. If land and capital are kept constant, 1% increase in labor days leads to increase output on an average, by 0.45% which is significant at 5% level of significance. It can be inferred that as the marginal productivity of labor is positive (0.45) there is opportunity of employing additional labor days to increase farm production. When land and labor inputs are kept constant, 1% increase in capital (total cost of production) causes on an average 0.40% increase in output which is statistically significant at 1% level. This result indicates that the small farmer are not incurring required amount of money to get maximum output. The most important finding is that on an average microcredit receiving farmers' output is 15% more than that of non-receiving farmers which is also statistically significant at 1% level, other things held constant.

On the other hand, the result shows that land has a negative effect on output. In other words, it can be explained that other things remaining constant, 1% increase in land size leads to decrease production by 0.26%, on an average. Inability of the small farmers to use other inputs proportionately while increasing farm size may be liable for this surprising result. Influence of external factors like attack of insects, salinity, over rainfall in harvesting period etc. may also be liable for this negative effect of land size on output. Generally small farmers can manage small land size and unable to incur additional cost properly for cultivating additional land. Farmers search for alternate employment and thus cannot manage their own farm. So, output from additional land may decrease in the study area. But they are not able to maintain the additional cost. Sen (1964) stated that there exists inverse relationship between farm size and productivity and hence finding of this study is in commensurate with Sen's findings.

Socio-economic Determinants of Farm Output

Table no. 4 shows the estimated influence of socioeconomic determinants on rice production, for microcredit non- beneficiary, beneficiary and combined groups based on equation-2, equation-3 and equation-4 respectively. Result shows that age affects farm output negatively to all three categories but the relation is significant only in combined category. Education is important for taking decision about different activities of agriculture. For example, one educated farmer may know better seeds, farming, low cost source, and quality inputs that affect production. Likewise education is affecting output in a positive manner in all three categories but relationship is not statistically significant. Sometimes it may happen

that traditional education is not helping in farm activities. Rather farm experience and knowledge in the relevant field helps better.

Table: 4 Socio-economic factors influencing farm output

Variables	Non-receiver of microcredit		Receiver of microcredit		Combined	
	Coefficient	Standard Error	Coefficient	Standard Error	Coefficient	Standard Error
Age	-1.311	0.954	-0.746	0.492	-1.077**	0.493
Year of Schooling	0.889	0.794	0.744	0.765	0.786	0.645
Experience	0.979	0.941	1.308**	0.520	1.149**	0.490
Family size	-2.166***	0.766	-0.211	1.350	-1.458	0.914
Visit of Agriculture Officer	-2.733*	1.612	-1.122	1.171	-1.427	1.050
Nature of Farming	12.162	9.658	15.302**	5.631	16.501***	5.246
Training	-3.213	4.353	-2.908	3.591	-1.919	2.986
Micro credit Dummy	--	--	--	--	4.152	2.588
Microcredit (BDT in thousands)	--	--	0.555	0.350	--	--
Constant	94.310	26.466	48.288	18.213	74.961	15.798
	N = 40; R^2 = .29		N = 40; R^2= .43		N = 80; R^2 = .25	

Note: ***, ** and * indicate significant at 1% (p<0.01), 5% (p<0.05) and 10% (p<0.10) level respectively.

Source: Authors compilation based on field survey, 2012

The result also reveals that experience is affecting output in a positive manner and the relationship is significant in microcredit beneficiary group and in combined group. Other things remaining constant, 1 year increase in experience increase rice production more than a *mound* in the these categories. Number of the family member is affecting production in negative manner which indicate disguised unemployment and perhaps nobody is dong job perfectly. Probably many family members are not engaged in cultivation also. The negative relationship between household size and rice production is statistically significant in non-receiver category.

The result shows that farmers practicing full time farming are more productive than those of practicing part time because full-time farmers can involve themselves intensively in farming. In microcredit receiving category, a full time farmer is producing about 15 *mounds* more than a part-time farmer. In combined category, a full time farmer is producing 16 *mounds* more and the relationship is significant at 5% and 1% level respectively. Due to poverty many farmers are forced to search alternate employment for continuing livelihood and thus farm activities get hampered which could be one of the reasons for low production of rice of part- time farmers. Generally part-time farmers use hired labor whose devotion to farm works is less than farmer himself who work in his/her own land. So, more labors are required to do same job which decreases productivity. In combined category, it shows that microcredit receiving farmers are producing about 4 *mounds* more than that of non-receiving farmer but it is not statistically significant. Specific effect of received loan can be observed to micro credit receiving group where an increase and use of additional loan of 1000 BDT increases farm output by 0.56 *mounds* but relationship is not significant. Training is showing negative coefficient but relations are not significant in any category. Training could have been misleading to the farmers. There may be other reasons for reducing output of trained farmers. Surprisingly, visit of agriculture officer affects farm output negatively which is not

matched with the expected causal relationship. It may happen due to sampling problem. The relationship is not significant in any category also.

Loan Scenario of Microcredit Beneficiary

It is evident that microcredit beneficiaries are getting more output than non-receiving category. Since the farmers are poor and are not able to incur all farm expenditure, it is the time to reach credit smoothly to the farmer. In credit receiving group, an additional loan of 1000 BDT is increasing farm output by 0.56 *mounds*. It is found that 65 percent of farmers take credit from NGOs and 5 percent from GOs where about 15 percent from private sources. It is also noticed that highest interest rate is charged by local money lender that is 26.5 percent and lowest is from government and that is 10 percent. Access to the formal baking system in any way can resist this interest burden. They take loan from different alternate sources as doesn't require mortgage. Most NGOs provide loan in group basis. Farmers get loan when they are able to make a group which may comprise heterogeneous crop cultivators. Some members may use loan in other purposes also. Thus some farmers receive loan earlier than actual cultivation period. It is found that most of the farmers (about 65 percent) take loan 1-2 month(s) before starting cultivation and about 10% take loan 5-7 months before starting cultivation. The rest get on time. As they are needy, they consume lion share of the loan when they get loan earlier which reduce their investable fund for farm activities. Here minimum cropping duration (from seedlings to harvesting) is about 6 months and in some cases, even it requires more time. Afterwards farmers get return and become capable to repay loan. So, convenient gestation period is required which indicates time lag between taking loan and getting output from investment. But most farmers pay 61-70 percent loan before getting return as NGOs try to recover loan at 100 percent on time and start collection from the very next week of disbursement. A few farmers have to pay 91-100 percent loan before getting output.

Concluding Remarks

This study estimated the production function of rice produced by small farmers of Khulna District of Bangladesh. The findings revealed that marginal productivity of labor and capital are positive where these two inputs are characterized by decreasing return to scale (which is about 0.4 in both cases) and are statistically significant. But, land is characterized by negative returns to scale. So, there is scope of increasing investment in labor employment and cost of farming. Since poor farmers are not able to incur additional expenses, microcredit can serve the purpose. Part time famers are not performing well in compared to full time farmers. Part time farmer can increase supervision when they are employing hired labor. The most important finding of the study shows that microcredit receiving farmers' output is about 15 percent more than that of non-receiving farmers. So it can be concluded that microcredit is playing a vital role in increasing farm output.

In fact, most of the microcredit providers' credit mechanisms are not matched perfectly with the need of small farmers. For poor farmers it is painful to repay before getting return and in most cases repayment starts from the next week of taking loan. Loan system should incorporate the provision of gestation period that would be minimum crop year equivalent to 5/6 months. Recently microfinance institutions are providing microcredit in agriculture sector in Bangladesh but interest rate is high. It is really difficult to get rid of credit trap from poverty stricken rural Bangladesh. So, credit system should be well developed incorporating gestation period to reflect aspirations of the small farmers that benefit them.

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