"IMPACT OF THE EXTENT MICROCREDIT PROGRAMMES OF GRAMEEN BANK ON SELF-EMPLOYMENT IN SHIBGANJ UPAZILA OF BOGRA DISTRICT"

Md. Abu Shamim
M. Phil.
Department of Economics
University of Rajshahi, BANGLADESH
Email: shamim07eco@gmail.com

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Abstract: The study has been analyzed to examine the impact of microcredit programme of GB that influence for enhance the self-employment activities of borrower's households in study area. In this study, it is analyzed the self-employment status at present situation compared to four years before involving with GB. A total sample size is only 140. Study area and respondent bothhave been selected randomly. In this study, primary and secondary data have been used. But primary data have been mainly used for statistically and econometrics analysis. Microcredit of GB is provided to the poor people who want to engage themselves in economic activities through increase self-employment. ANOVA, Correlation and OLSregression have been used to analyze the impact of extent microcredit of GB on self-employment.The result of correlation shows that the relationship between microcredit and self-employment is positive and statistically significant. Petty business and auto-rickshaw in case of self-employment is employed more compared to others.Borrower's head of households are interested more for diversified from firming activities to non-firming activities such as petty business and auto-rickshaw. Results of OLS indicate that coefficient of variables such as amount of loan (LON) and advising and monitoring (ADVMONT) are statistically significant relationship with self-employment. At present, the result of ANOVA test is also statistically significant that amount of loan has a positive contribution on self-employment activities. After involving with GB, self-employment in case of both borrowers self and borrower's heads of household is increased at present.

Key words: Microcredit, Grameen Bank and Self-Employment

1.1 Introduction

Unemployment problem in Bangladesh is one important issue at present. Self-employment is also most important factor to reduce unemployment. In our country, most of the people are not interested on self-employment but they are interest in job service and agricultural activities.

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Income in the agricultural sector is lower more compared to non farming activities such as businessbut most of the people are engaged in the agriculture sector.According to World Bank (WB) Development Indicators Database, the labour force participation rate (% of population aged 15-64) for male and female is 79% and 55% respectively,in 2014.Most of the people are depended on agriculture and live in rural areas of the country. About 25.70 in million out of 54.10 in million people were employed in agriculture in 2010 (BBC, LFS from 1992-2010).Excess workers are employed in the agriculture sector in our country.A part of these worksisemployed in this sector as seasonal workers. Ifthe excess workers in the agricultural sector have to transfer into the non agricultural sector such as petty business, self-employment through providing credit, training and human developed.Day by day, land size of per head has been decreasing due to growth of population rapidly but on the other hand, the rate of unemployment in rural area and urban area not only in Bangladesh but also worldwide has been increasing rapidly. Comparatively poverty rate in rural area is more than at national level and urban area of Bangladesh. In 2000 and in 2008 respectively, the rate of unemployment was 3.3 and 3.0 which increased to 4.1 in 2016 (WB).These poor people cannot buy basic need for survival life due to lack of money. Capital is need both for farming and non farming activities. Capital is necessary more for non farming activities compared to farming activities.Poor people have no access to the conventional bank due to required collateral. Therefore, there has no enough opportunity creation for self-employment in diversified to non-farming activities through conventional banking system and informal sector for self-employment and engaged in economic activities.Microfinance institutions provide microcredit to these poor people who want to engage in economic activities or income generating activities. So government organizations are not enough for loan. NGO-MFIs provide finance and service that fill up the gap of government. In Bangladesh, some largest of microfinance institutions are Grameen Bank, BRAC, ASA, and Proshika respectively (**Zaman, 2004**). Grameen Bank (GB), BRAC and ASA provide access to finance to nearly 20 million poor people here(**BMR, 2011**).Grameen Bank is one biggest of them. GB provides not only financial service but also some special development programmes for poor people in rural area.Microfinance programme of GB has contribution on increase self-employment. It may beimproved economic and social indicators such as income, consumption, assets, savings, level of education of children, access to medical treatment etc.Previous several studies indicate a positive impact on employment or self-employmentsuch as (**Alishebami, 2017;Okafor, 2016;Mamun et al., 2011; Gocer, 2013**)and other some are questionable (**Bauchet and Morduch, 2012; Kahn et al., 2016;**

Chowdhury, 2009).But it is need to know that what is the impact of the extent microfinance activities of GBon self-employment in Shibgong upazila under Bogra district in Bangladesh?

1.2 Literature Review

This section has been shown the results of the previous several studies that these are related microfinance and self-employment.

It shows that ceteris paribus, credit will increase job, household well-being and poverty reduction. But microcredit may not create employment but can help borrowers to start, improve and expanded micro-enterprises. In this context, enterprise expansion can make adding other products or services like the existing activities and the clients create new employable wage enterprises for the jobless (**Emmanuel et al., 2015**). It investigates an impact of microfinance in reducing poverty and unemployment in Yemen. It is found that thelevel of income of borrowers has been increased at different ranges after receiving microcredit because they used loans for income generating activities where the number of workers is increasedin their enterprise after receiving loan. Microcredit has positive impact onexpenditure such as consumption and buying new assets at households(**Alishebami, 2017**). The result of the study shows that microfinance bank activities have a positive effect on employment generation in Nigeria during the study period (**Okafor, 2016**). The microcredit programme has positive impact on self-employment. It is found that self-employment is also influenced by other factors such as training facilities, social conscious, advising regarding the capital assets and other non-financial services(**Yogendrarajah, 2014**).From unemployment to self-employed is organized that there are important factors such amount of loan, training and advice. But unemployed people and poor people have no access to commercial loans (**Metcalf and Benson, 2000**).The study indicates that participation in AIM's microcredit programme increases employment rate among the borrower's household and community.The higher rate of old and adult respondents are successfully employed more compared to new respondents and the higher rate of old respondent are also engaged in household and non-household members in their income generating activities (**Mamun et al., 2011**).In the European Countries, it has been shown that credit increases has reduced the effect on unemployment rate that is statistically significant (**Gocer, 2013**). Various studies reveal that microcredit has a globally positive image of both respect to jobs created and the social integration of its beneficiaries (**ILO, 2014**).In the study, it shows that 34.1%, 41.1% and 24.8% out of total respondents are unemployed, employed and self-employed respectively. There are factors causing youth unemployment such as negative social and cultural attitude

to words self-employment, lack of finance, lack of business assistance and support. The higher rate of respondent of Meserak TVET college graduates are employment compared to unemployment (**Tegegne, 2014**).It is found the relationship between microcredit finance and unemployment using data from 1994-2014. It also indicates that there is a negative relationship between microcredit finance and unemployment (**Ncanywa and Getye, 2016**).The study shows that the six antecedents and personal demographical factors which indicate positively the intentions of seeking microcredit among the youth in Sri Lanka. It indicates thatsubjective norms of microcredit are positively related with seeking microcredit of youth. The antecedents of seeking microcredit intention for youth are influenced by subjective norms, perceived behavioural control, knowledge of microcredit, perceived government support, tolerance for risk and entrepreneurial desire(**Kajenthiran et al., 2017**). He finds that Grameen Bank does not create self-employment for women but they are able to start micro-enterprises at household level. Participation of borrowers in GB helps the borrowers' husbands to begin micro-enterprises, increases capital of existing household micro-enterprises which are driven by borrowers' husband or other male members in these families(**Chowdhury, 2009**). They show that microcredit reduces employment gap between men and women in Egypt. Amount of microcredit is a positive relationship with the proportion of working women and the rate employment of women is also increased (**Arouri &Nguyen, 2017**).It finds that there are test separately self-employment and employment for pay between three groups such as current borrowers, pipeline borrowers and non-borrowers. There is no effect on employment in Pakistan (**Kahn et al., 2016**).Microcredit programs observe production loan for non-agricultural activities to landless and assetless for rural households. Credit reduces working hours of male in the wage agricultural labor marketand increase working hours in field crop self-employmentdue to increasing participation more in couple with credit. The effect of female participations with credit is more than male participation (**Pitt, 1999**). It is to examine the determinants of self-employment survival among women and men in Canada.The number of self-employment increases in the number of children for female and decreases in number of children for male. The gender difference in risk ratios is not statistically significant. High levels of investment income are low in case of female self-employment group (**Rybczynski, 2014**).It shows that microcredit and small and medium enterprise (**SME**) finance help to create self-employment opportunities among low income people and communities. SMEs provide employment on a large scale than microenterprises supported by microcredit. A survey of the employees of Bangladeshi SMEs finds that typical employee is a young, educated male

that is better than microcredit (**Bauchet and Morduch, 2012**).It investigates that disabled people in developing countries are being promoted their economic empowerment through self-employment using microcredit. The disabled population is probably the main obstacle for increased access of microcredit services to disabled persons (**Mersland and Alliance, 2005**). It explains the determinants of self-employment where microfinance is a vital factor of determinant. Self-employment is influenced by age, education, sex, family wealth, marital status, technical skill, loan purpose andmicrofinance which has a positive and significant impact on self-employment and 2 times may can increase self-employment if provides loan at easy grounds (**Awan and Ibrahim, 2015**).They reveal an importance of the development of micro crediting in the process of development of women's entrepreneurship in Serbia.The significant of microcredit is initially in decreasing market gap between supply and demand for microcredit by women entrepreneur. In this case, it has a contribution on increasing the number of employed women and improving their socio-economic status. It also shows that if the amount of 8%, 41%, 68% and 82% is increased continuously, about 97 thousand new jobs for women and improve their socio-economic status (**Sonja and Olivera, 2015**).It is shown thatmicrocredit has a positive effect on employment (**PKSF Survey 1997-2001**).

1.3 MicrocreditandSelf-Employment

In 1983, Grameen Bank as microfinance institutionanda special bank was established by Muhammad Yunus that wasjourney as a project in 1976 in the surrounding villages of the university of Chittagong in Bangladesh.At first, he saw some poor women who sold their handicraft products to middlemen at lower compared to the market price because they received raw materials as credit from those middlemen.So those poor women need capital for buying raw material to produce the handicraft products.He realized that the lack of capital and engaging income generating activities in rural areas was the basis causes of poverty. Initially he provided some loan to produce the handicraft product from own pocket but it was not permanent solution for them. He went to commercial bank and discussed it with bank executive but they refused to provide credit to these poor due to insufficient required collateral, small size ofproposed loanand high administrative cost.In case of creating these questions by the executives of the formal sector commercial banks about the required collateral, he offered himself as a guarantor of those loanees. So he realized that it is not permanent solution for these poor people. In this situation,microcredit programme of Grameen Bank (**GB**) was started and distributed officially microcredit among poor women without collateral from 1983.

The Microcredit programme provide small loan to the poor people, mainly women for self-employment activities, thus agreeing the respondents to achieve a better quality of life(**Hussain, 1998; Morduch, 2000 and Rahman, 1995**). It is called the most sensational anti-poverty tool for proimpact of microcredit on income, employment etc (**Hossain, 1988; Hulme and Mosley, 1996; Schuler and Hashemi, 1996; Ahmed, 2009**). GB has already taken some special programme such as Village Phone Programme and Beggars Programme of Grameen Bank to poor people for self-employment and it has a positive contribution on economic.

On the other hand, the rate of female and male unemployment in Bangladesh is 4.9% and 4.2% in 2002-2003 which increased to 7.3 percent in case of female in 2013 while the rate of unemployment for male reduced to 3.0% (SPBB, 2016). The rate of female unemployment in rural area and in urban areais more compared to male. Labour force participation both for male and for female is 87.4% and 26.1% in 2002-2003 which reduced to 81.7% in case of male in 2013 while increased to 33.5% in case of female in Bangladesh. The rate labour force participation for male and female in rural area was 88.1% and 25.6% in 2002-2003 which reduced in case of male in 2013 while the rate labour force participation for female increased. Self-employment, employers, employee, unpaid family helpers, day labour and household aid in Bangladesh are included in the status in employment. Self- employment, employers, employee and unpaid family helpers are 19.8 (in million), 0.2 (in million), 6.1 (in million) and 8.1 (in million) in 2002-2003 which increased to 23.6 (in million), 0.5 (in million), 13.5 (in million) and 10.6 (in million), respectively, in 2013. The number of self- employment in employment status is more compared to all employment status in Bangladesh. Haque (2012) the study shows that the microcredit is a tool for poverty reduction in rural area through microcredit program. The income of sixty percent respondent has increased and 46.18 percent respondents were able to self-employ after receiving microcredit.As of January 2018, the population has been estimated to be 165867307 in Bangladesh of which 83754779 and 82112528 are males and females, respectively (Country Meters, 2018). Most of the females are employed in only household work. If those female would be possible to engage as self-employed beside household work through microcredit programme than income of these households may be increased after involving with this programme due to increasing in income generating activities. Grameen Bank has already taken some special development programmes such as village phone programme, beggars programme and scholarship and educational loan of borrower's children in Bangladesh.

1.3.1 Village Phone Programme

The GB has developed microcredit programme through variety activities. Village phone programme is one of them which have been begun since 1997. In the village phone programme, women entrepreneurs could be begun their businesses for self-employed and the GB provided only to them wireless payphone service in rural areas. It is shown in below Table 1.1 that number of village phones was 3085 in 2000 that increased to 1688956 in 2016 whereas average of number of village phones and growth rate of number of employees under this programmewas 567004 and 151.91 during 2000-2016 respectively.

Table 1.1: Village Phone Programme

Years	Number of Village Phones	Growth Rate of Number of Employees
2000	3085	0
2002	21409	593.97
2004	92673	332.87
2006	278570	200.59
2008	353909	27.04
2010	394362	11.43
2012	841170	113.29
2014	1428902	69.87
2016	1688956	18.19
Average	567004	151.91
Source: Grameen Bank Annual Report 2000-2016		

1.3.2 Beggars Programme of Grameen Bank

At first in 2003, beggars as the fighting or struggling members of GB were involved. This programme is called struggling members programme. The GB gives microloan to the beggars to start petty business according to this condition that is for giving up begging. All loans of GB are interest free for beggars and it is authorized for a long period of time where repayment installment is very small. It is shown in Table 1.2 that in 2006, amount of disbursement was79.42 (in Million Tk.) which was distributed among 79847 number of beggar member in 2006. Growth rate of amount disbarment and number of beggar members was higher in 2006. Lowest growth rate of number of beggar members and amount of loan distribution was 2.40 percent in 2012 and negative (-10.22) percentin 2016 respectively. Average growth rate of number of beggar members and amount of loan disbursement was 19.00 and 62.69 during 2004-2016.

Table 1.2: Number of Beggar Members and Disbursed Amount

Years	Number of Beggar Members	Growth Rate of No. of Beggar Members	Amount Disbursed (in Million Tk.)	Growth Rate of Amount Disbursed
2004	34077	-	17.91	-
2006	79847	134.31	79.42	343.44
2008	91452	14.53	124.82	57.16
2010	90776	-0.74	154.99	24.17
2012	81498	-10.22	165.37	6.69
2014	78719	-3.41	173.68	5.02
2016	77582	-1.44	177.85	2.40
Average	76278.71	19.00	127.72	62.69
Source: Grameen Bank Annual Report 2000-2016				

1.4 Objectives of the study

The main objective of the present study is to explain the impact of GB microcredit on self-employment of the rural poor people in study area. The above objective of the study are specified below

(1) To measure the relationship between microcredit of GB and self-employment of poor people;

(2) To examine the impact of microcredit ofGrameen Bank on self-employment of poor people;

1.5 Hypothesis of the present Study

The following hypothesis has been tested

Ho: There has no significant impact between microcredit of Grameen Bank and self-employment in the rural poor people.

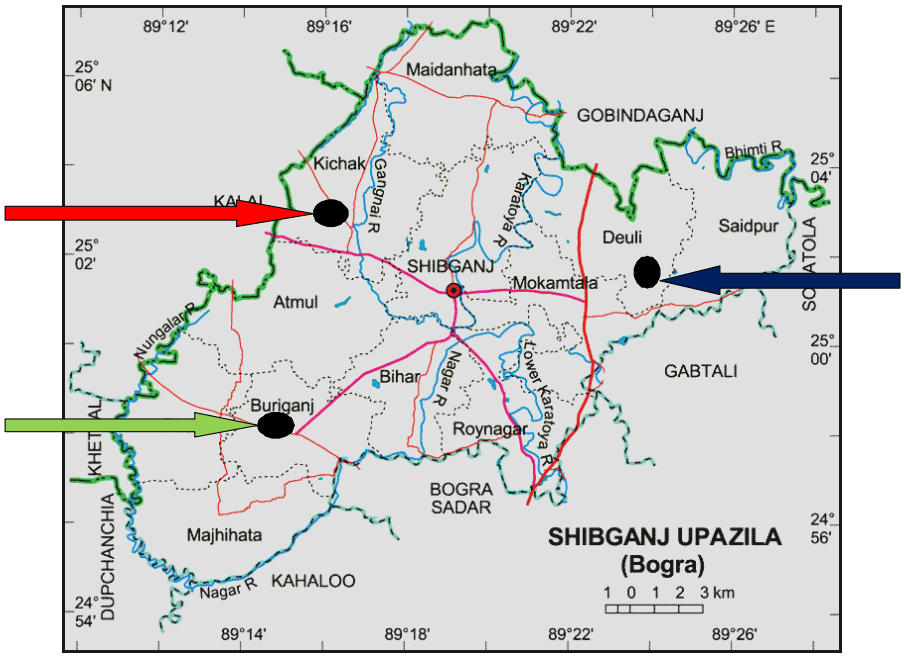
H1: There has significant impact between microcredit of Grameen Bank and self-employment in the rural poor people.

1.6 Selection of Study Area

Shibgang upazila of Bogra district of Rajshahi division has been selected as a study area which upgraded in 1984 as second largest upazila of the district following to both area and population which established thana in 1887. In the upazila, total population is 378700 of which 190376 and 188324 were males and females respectively (**Population Census; 2011**).There are produced some crops such as paddy,wheat, maize,potato, ginger, jute, betel leaf, sugarcane, turmeric, vegetables, pulses, oilseed, cotton, etc.Ownership of agricultural land and landless are about 59.9% and 40.1% respectively.Main sources of income are agriculture, non-agricultural labourer, industry, commerce, service and transport and communication. There are some cottages industries such as goldsmith, blacksmith, potteries, weaving, wood work, bamboo work, tailoring.

Literacy rate of this upazila in case of both sex was 47.9 in 2001 while male and female separately are 53.2% and 42.4% respectively which increased to in case of both sex 52.1% in 2011while male and female are 54.9% and 49.2% respectively. In case of the selection as study area,there are three centers under three branches such as Buriganj, Kichak and Deuli randomly. The branches are identified on the map upazila that is presented below.

Map of Shibgang Upazilla of Bogra District



1.7 Research Methodology

In this study, primary data have been collected through interview method from borrowers wholivemiddle class and disadvantage village in rural area of Bogura District.All respondentshave been selected 140for this study.The design consists of two situations of the respondents, and it has been compared to present condition of borrowers with four years ago. Borrowers,only 140, who have been influenced by microcredit from Grameen Bank on self-employment and reduction unemployment,receive microcredit fromGrameen bank at present.On the other hand, these borrowers,only140,have noinfluenceof microcredit on self-employment and reduction unemployment before involving with GB. Statistical tools such as mean, ANOVA test and econometric analysis such as OLS model have been used toexamine thefirstobjective and second objectives respectively.In addition,the relationship between microcredit of GB and self-employment is explained by correlations analysis in this study area.

Regression analysis has been used to examine the impact of microcredit of GB on self-employment.Self-employment is influenced by amount of microcredit from GB and others. However, in this study, a relationship between self-employment activities and a set of independent variables is formulated following below

$$Si = f(Xi) \quad \ldots (1)$$

Where, Si is self-employment status, Xi is a set of independent variables suchamount of loan from GB (LON), advising and monitoring (ADVMONT) and training (TRN). On basis of the above mentioned variables, the regression model can be written as equationfollowing (Yogendrarajah, 2014)

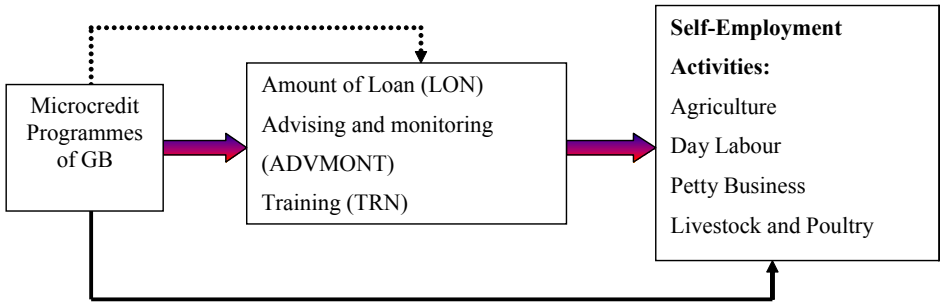
$$SF = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \quad \ldots (2)$$

$$SF = \beta_0 + \beta_1 (LON) + \beta_2 (ADVMONT) + \beta_3 (TRN) + \mu \quad \ldots (3)$$

The equation (3) for self-employment is specified in Logarithmic form as follows

$$Ln(SF) = \beta_0 + \beta_1 Ln(LON) + \beta_2 Ln(ADVMONT) + \beta_3 Ln(TRN) + \mu \quad \ldots (4)$$

Conceptual Framework



Source:[Yogendrarajah, (2014). The impact of microcredit on self-employment of women- a survey on Jaffna district, Sri Lanka, Page No.8]

1.8 Analysis of Result

After collecting primary data, employment status of GB borrowers and household heads of GB borrowers has been analyzed below mentioning Table1.3 and Table 1.4 respectively.

Table 1.3: Employment Status of GB Borrowers

Before Involving with GB			At Present	
Employment Status	Frequency	Percent	Frequency	Percent
Only Housewife	124	88.57	92	67.14
Day labour	7	5	2	1.43
Embroidery and Weave	6	4.28	20	14.28
Petty business	2	1.43	18	12.86
Poultry raising	1	0.71	6	4.28
Total	140	100	140	100
Mean	1.55		2.36	
Std. Deviation	1.61		2.45	
Source: Authors' Primary Data Calculation, 2017				

The above Table 1.3 presents employment status of GB borrowers own and mean value of it in case of before involving with GB and at present. It is shown here that before receiving loan from GB, highest and lowest employment status of borrowers own were 88.57 percent in case of only housewife who had no contribution directly in income generating activities and 0.71 percent in poultry raising. Rest borrowers in employment status are day labour, embroidery and weave, petty business. On the other hand, at present, 67.14 percent of borrowers are only housewife who are employed on housing work only but they have no contribution on income creating activities indicates the highest rate. The lowest employment is 1.43 percent in day labour. It is also found that mean value of employment status of GB borrowers before involving with GB and at present is 2.80 and 3.50 respectively. It indicates that the mean value of employment status of GB borrowers own at present is increased more before involving with GB.

Table 1.4: Employment Status of Household Heads of Borrowers

Before Involving with GB			At present	
Employment Status	Frequency	Percent	Frequency	Percent
Agriculture	52	37.1	14	17.1
Day labour	25	17.9	16	11.4
Petty business	35	25.00	52	37.1
Livestockand Poultry raising	5	3.57	12	8.6
Van/ Rickshaw/Auto puller	23	16.40	36	25.7
Total	140	100	140	100
Mean	2.80		3.50	
Std. Deviation	1.64		1.42	
Source: Authors' Primary Data Calculation, 2017				

Employment status of household heads of GB borrowers has been shown in the above Table 1.4 that highest and lowest employment of household heads mainly husband of GB borrowers is 37.1 percent in agriculture and 3.57 percent in livestock and poultry raising before involving with GB. Another side of the same table, it is found that at present, highest and lowest employment of household heads mainly husband of GB borrowers is 37.1 percent in petty business and 8.6 percent in livestock and raising respectively. The mean of employment status of household heads of GB borrowers is 2.80 before involving with GB which increase to 3.50 at present.

1.8.1 Results of Hypothesis

It is shown in the below Table 1.5 that the result of correlations between amount of loan and self-employmentis positiveand statistically significant at level 0.01 percent level.

Table 1.5: CorrelationsAmount of Loan and Self-Employment

	Self-employment	Amount of Microcredit
Self-employment	1	0.481*
Amount of Microcredit	0.481*	1
**Correlation is significant at the 0.01 level		
Source: Authors' Primary Data Calculation, 2017		

On the other hand, the below Table in 1.6 shows that the results of the correlation between self-employment on agriculture, day labour, petty business, livestock, van/auto-rickshaw and amount of loan are 0.13, 0.14, 0.61, 0.15 and 0.38 respectively. The highest and positive correlation between petty business on self-employment andamount of loan is 0.61 which indicates statistically significant at the 0.01 percent level. The lowest and positive correlation between agriculture and amount of loan is 0.13.

Table 1.6: Correlations for Agriculture, Day Labour, Petty Business, Livestock, Van/Auto-Rickshaw and Amount of Loan

Control Variables	Agriculture	Day Labour	Petty Business	Livestock	Van/Auto-Rickshaw	Amount of Loan
Agriculture	1.00					0.13
Day labour		1.00				0.14
Petty business			1.00			0.61 **
Livestock				1.00		0.15
Van/Auto-Rickshaw					1.00	0.38
Amount of Loan	0.13	0.14	0.61**	0.15	0.38	1.00
Correlation is significant at the 0.01 level						
Source: Authors' Primary Data Calculation, 2017						

1.8.2 One-Way ANOVA Test

The result of one-way ANOVA test which shows that there exists statistically a significant relationship between amount of loan and self-employment of borrower'sheadsat level of 10 percentat present that is found in Table 1.7.

Table 1.7: The Result of One-Way ANOVA Test Amount of Loan and Self-Employment for Household Head

		Sum of Squares	df	Mean Square	F	Sig.
Self-Employmentfor Head households at Present	Between Groups	88.54	33	2.68	1.46	0.08
	Within Groups	194.46	106	1.84		
	Total	283.00	139			
Source: Authors' Primary Data Calculation, 2017						

On the other hand, the result of one-way ANOVA test which shows in Table 1.8 that statistically a significant relationship between amount of loan and self-employment of borrower's selfat level of 5 percentat present

Table 1.8: The Result of One-Way ANOVA Test Amount of Loan and Self-Employment for Borrower Self

		Sum of Squares	df	Mean Square	F	Sig.
Self-Employment for Borrower self at Present	Between Groups	65.879	31	2.125	1.653	0.031
	Within Groups	138.864	108	1.286		
	Total	204.743	139			
Source: Authors' Primary Data Calculation, 2017						

1.8.3 Results of OLS Regression

OLS Regression for the equation (4) as self-employment has been used to examine impact of microcredit of GB on self-employmentthat is dependent variable which is influenced by some explanatory variables have been mentioned in Table 1.9.Results of OLS Regression for self-employment have been shown in Table 1.9 that observes about 43 percent of variations in the dependent variable is explained the variation in independent variables integrated in case of the equation that is seen by the value of R2 (R2 =4263). The overall significance and fitness for OLS model are checked by F-value (F = 16.47). It indicates that the explanatory variables consistently predicted the dependent variable of the OLS model for self-employment. The mean value of VIF test and value of Durbin-Watson test is 1.00 and 2.13. There were no serious problems such as multicollinearity andautocorrelation for OLS model analysis but might be existed heteroscedasticity problem in this model.

Table 1.9: OLS Regression Analysis for Self-Employment Equation

Variables	Coefficient	Std. Err.	t-ratio	Probability
Constant	2.468**	1.147	2.15	0.033
Amount of Loan (LON)	0.257**	0.130	1.98	0.049
Advising and monitoring (ADVMONT)	0.220*	0.132	1.73	0.085
Training (TRN)	0.129	0.098	1.31	0.192
Number of obs. =140; F (6,133)=16.47; Prob.> F =0.0000; R^2 =0.4263; Adj R^2=0.4004, Durbin-Watson = 2.134				
Note: *** Significant at 1%; ** Significant at 5% and * Significant at 10%				
Source: Calculation from Field Survey, 2017				

The above table shows that the coefficient (0.257) of the variable amount of credit is positive and statistically significant of level at 5 percent with self-employment of borrower's households. This means that self-employment of borrower's households will be increased by about 26% if addition Tk.1000 amount of credit is increased with the loan. This additional loan may be invested in case of farming and non-farming activities such as agriculture, petty business,buying livestock van and auto-rickshaw. The coefficient (0.220) of advising and monitoring (ADVMONT) is statistically a significant and positive relationship with self-employment. Most of the borrowers are uneducated who do not well know about investmentthat in which sector microcredit of GB will be invested and they can be able to progress and success in their life.On the other hand, the coefficient of training (TRN) of GB for borrowers is notstatistically significant with dependent variable, self-employment.

1.9 Conclusion and Recommendation

It can be defined conclusion from above result analysis that it indicates a positive relationship between microcredit and self-employment. Result of regression shows that self-employment is influenced by amount of loan from GB, advising and monitoring and training.Amount of loan from GB, advising and monitoring are statistically significant and positive relationship with self-employment in rural area of this study area. The highest and lowest correlation between petty business and agriculture on self- employment with amount of loan is 0.61 and 0.14 respectively which indicates statistically significant at the 0.01 percent level. In addition,the result of one-way ANOVA test shows a significant relationship between amount of loan and self-employment both in case of borrowers selvesand borrower' head of household after involving with GB.

Some recommendationsmention below

1. MFIs should provide loan more in disadvantagerural area compared to urban area in Bangladesh. Compulsory saving condition must be relaxed for borrowers of GB.

2. GB should provide financial service to the young unemployment people who want to engage themselves for self-employment but they have no enough money in their hand for self-employment.GB encourages poor people and business assistance and support, monitoring could be organized for self-employment.

3. The education programme, vocational programme of GB and training should be provided to uneducated women in rural area. This can be introduced in the schools rural areas.

4. Government should encourage not only MFIsbut also a part of loan of the commercial banks provide for the poor people at cheaper rates in disadvantage rural area of Bangladesh.

5. Infrastructure is not well in the rural area of Bangladesh. Government in rural area of Bangladesh should need more budgets for developmentof infrastructure. So that MFIs will be more encouragedproviding more loans in disadvantage rural area and these poor people will be interested more investment in non-farm activities.

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