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SOCIO-ECONOMIC EFFECTS OF MICROFINANCE OF GRAMEEN BANK ON BORROWER HOUSEHOLDS IN BOGRA DISTRICT OF BANGLADESH

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Abstract

The study is to examine the socio-economic effects of microfinance of Grameen Bank (GB) on borrower households in the study area. Microfinance of Grameen Bank has a contribution on change of socio-economic status, reducing poverty and increase income generating activities. It is to investigate the socio-economic change occurred among them in the reference time of period. The collected data were estimated using statistical techniques. Statistical analyses include mean, Chi-square test, analysis of variance (ANOVA) test and four Likert scales (four point-scales) such as Strongly increase (Strongly Agree), Moderate increase (Agree), Unchanged (Disagree) and Decreased (Strongly Disagree). The total sample size was only 168 borrowers of GB through simple random sampling from eight centers under four branches, and where multi-cluster sampling has been used for this study. The ANOVA test is performed to examine the association between microcredit and socio-economic factors such as education, occupation, average monthly income, savings, value of assets and cultivated land, etc. After taken loan from Grameen Bank (GB), change of average monthly income, savings, average monthly expenditure, occupation of borrowers, education expenditure for children of borrowers, asset value of borrower households are being increased. The respondents showed the level of changes in 16 chosen indicators separately. Participation impact score (PIS) of selected change items (16 items) reveal that how much changes to have occurred among the women borrowers after joining GB. The result of Standardized PIS (SPIS) reveals the overall significant, which is above 70 percent. The results of PIS or SPIS indicate that the highest score among selected 16 items is for improved participation in family decision-making and the lowest score among all is for improvement counting ability. Finally, coverage and schemes of microcredit programmes, lowering interest rate, extending the repayment period, delaying the start-up of instalment are among the main suggestions that can be pursued so as to obtain better outcomes of microcredit activities in the study area and in the whole country as well. In spite of some barrier of microfinance institutions, microcredit has a positive contribution on socio-economic of borrower households in the rural area of Bangladesh.

Keywords: Grameen Bank; Microfinance; Socio-economic Factors; Borrowers and Borrower households.

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1. Introduction

Microfinance programme is a mainstream development intervention for changing socio-economic condition among the borrower households in the rural area of Bangladesh. The economy of Bangladesh depends largely on agriculture, and about 47.3 percent of people of the country are employed in agriculture. Currently around 24.63 percent of people live below poverty line in the country and poverty rate is more in rural area compared to urban area (BER, 2015). Most of the farmers are marginal and small, and they cultivate land under share-cropping system. The highest number of females is employed in agriculture sector compared to number of males (LFS, 2010).

Main characteristics of Bangladesh are high rate of unemployment, high dependency ratio, limited income opportunities, low level per capita income, low level of savings, low level of investment, and high rate of poverty. Because of these cases, these poor people suffer from malnutrition, and they cannot provide sufficient quality food to eat. In this context, most of the people in agriculture cannot provide basic needs including food, clothes, shelter, medical treatment, and education. However, it is revealed that microfinance activities have on the socio-economic effects of women borrower households. Microcredit activities increase income levels, stocks and productivity of the enterprise as well as increasing expenditure on health and children education (Kireti & Sakwa, 2014). The availability of financial services for poor households (microfinance) is a significant factor with strong impact on the achievement of the MDGs. (Littlefield et al., 2003). The idea of microfinance programme of GB was given initially by Dr. Mohammad Yunus, the Nobel laureate in peace in 2006 and a former Professor of Chittagong University in Bangladesh. In December 1976, with group-based microfinance programmes and Professor Yunus established successfully it as separate bank named the Grameen Bank. It is the Grameen bank which operationalized microcredit as the most sensational anti-poverty tool for the poorest, particularly for women (Microcredit Summit, 1997). As an immediate outcome, it is found that due to the utilization of microcredit, poverty among the people has decreased in Bangladesh (Khan et al., 2017). Thus, different Non-government organizations and Microfinance Institutions (NGO-MFIs) have come ahead with this programme for changing and improving socio-economic and rural development of Bangladesh. A half people of the whole is women who have a role in domestic duties such washing utensils, cleaning house compounds, livestock and poultry management, feeding of post-harvest activities, guest entertainment, and decision making (Paul and Saadullah, 1991). Most of these women have no access to conventional bank and financial institutions without collateral. If proper training and education by microfinance institutions (MFIs) would be provided for these women who wanted to employ in income generating activities. GB gives microcredit to the poor people to defend, diversify, and increase their source of income through enhancing employment opportunities and productivities both in farming and non-farming sectors that contribute to improve socio-economic, and to reduce poverty. However, the results of microfinance of GB and other NGO-MFIs are not clear cut on socio-economic effects of borrower households. Therefore, this study is an effort to examine the socio-economic effects of GB microfinance on borrower households at *Dhunat, Gabtali, Durgahata, Nandigram and Sarikandin upazilas* in *Bogra* district of Bangladesh.

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1.1. Brief Literature Review

A number of earlier studies have been searched and these are related to a vital issue that is to the socio-economic effects of microfinance programmes on borrower households in both Bangladesh and worldwide.

The study shows that assets, income generation and savings are main factors of women social economic development. It is found that microcredit, savings and training are empowerment tools which have a positive impact on social economic development. It is found that income source of the respondents is farming (55%), business (33%), and others (12%), respectively (Patient et al., 2016). The study showed the socio-economic impacts of Grameen Bank income generating loans on rural women in the study area. They are employed in income generating activities such as farming, petty business, livestock rearing, tailoring and van or rickshaw pulling. Findings of the study show that overall income and savings change by taking microcredit from Grameen Bank were 36.04 percent and 68.3 percent, respectively (Labani et al., 2015). It is examined what's the impacts of microfinance has on the rural poor people at household, micro enterprises and the individual levels. The results of the study show that SUMI microenterprise has a significant contribution to increasing income, asset, to access to better health care and to improve education, household condition and better clothing in terms of loan takers compared to non-takers. There were only slight improvements in consumption patterns and nutrition due to increasing market food prices and employment generation (Clement, 2010). They explained the socio-economic impact of microcredit on rural areas in Bangladesh. OLS model has been used for the study. Poor people took microcredit from different NGO-MFIs to alleviate poverty and to improve the standard of living. It is found that microcredit has a contribution to socio-economic changes on rural poor people including the reduction of income inequality, unemployment and increase savings and expenditure. There are some positive effects on health, education, nutrition, life expectation, etc (Haque et al., 2016). He examined the socio-economic impact for self-help groups (SHGs) on borrower households. It reveals that microcredit has a positive contribution to change in the level of living of MFIs' members. The results of the study show that socio-economic impact is an important tool to increase savings habit, credit accessibility, income, and assets (Reji, 2009). The study investigated the impact of microfinance on the socio-economic condition of women entrepreneurs in Ghana. It is found that microfinance institutions provide microcredit to poor people in terms of economic development context. The findings of the study show that women's enterprises have expanded their business while the socio-economic status of borrower households has also improved after joining in MFIs (Dzisi and Obeng, 2013). He explained the social and economic impact of microfinance in the study area. It is found that poor people borrow small amount of money that help them to employ in income generating activities, and it has a contribution to reduce poverty among them. Findings of the study reveal that microfinance activities improve more micro-enterprises, and help to more informal to become formal businesses (Alcivar, 2014). They examined the socio-economic effects of women participation in microfinance programme. The study shows that microfinance activities have effects on the socio-economic status of women borrower households. It is revealed that microcredit activities increase income levels, increase stocks and productivity of the enterprise as well as increase expenditure on health and children education (Kireti & Sakwa, 2014). The study critically examines what the role of microfinance in socio-economic status of women in a community. He used both qualitative and quantitative methods. It is found that MIFs provide skills development programme through training, insured credit facilities, savings mobilization, banking facilities, supervision and

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monitoring of the borrowers and provision of agriculture inputs such as seeds and chemicals but small amount of loan disbursed, high interest rate and low returns on investment (Luyirika, 2010). They conducted the socio-economic effects of microfinance on agriculture sector. It is found that microfinance scheme has a contribution to reduce poverty and improve their standard living among small farmers. It improves and increases the production of the farmers through reinvestment (Saad et al., 2014; Alam et al., 2014). Based on above the brief literature review it is being indicated that microcredit service has a positive contribution to improve socio-economic status of the borrower households.

1.2. Conceptual Framework

Based on the brief earlier literature review, it is shown a relationship between microfinance and socio-economic effect of borrower households that is presented in Figure 1.1. Socio-economic effects of microfinance on borrower households are found a net change that is a change of economic condition between before and present joining in GB of borrowers.

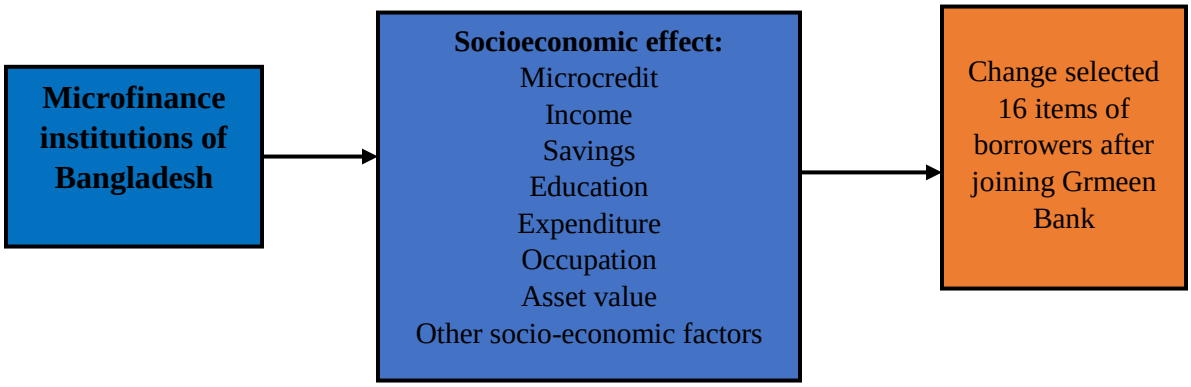

Figure 1.1: Conceptual Framework

Source: Researcher's Own

1.3. Hypothesis of the Study

H_0: There is no significant effect between microcredit loan and the socio-economic status of borrower households in the study area.
H_1: There is significant effect between microcredit loan and the socio-economic status of borrower households in the study area.

1.4. Selection of Study Area

Bogra district was established in 1821 during the British rule and its area is 2898.68 km^2 (1119.18 sq. miles). According to 2011 census, the total population of the district was 3400874 of which 1708806 are males and 1692068 are females. The area of district is 2,898.68 km^2 of land (1119.19 sq mi).

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Figure 1.2: Four Branches of GB on Map of Bogra Zone

As study area Bogra district has been selected. Multi-cluster sample has been used in case of selected study area. The district has twelve sub-districts (upazilas) and where *Dhunat, Gabtali, Nandigram and Sarikandi* upazila among them have been selected. At first, Bogra zone among forty zones of Grameen Bank has been selected, purposively, which fells only Bogra district. Secondly, three areas in six areas under this zone have been selected. Name of these two areas is *Bogra (sadder) and Dupchachia* area, respectively. Thirdly, four branches have been selected from these areas under this zone. These four branches are *Dhunat, Gabtali, Nandigram and Sarikandin,* respectively. There are eight centres under these four branches of Grameen Bank randomly. These four branches are presented in the above Figure 1.2.

2. Methodology

The present study has been used a comparison of the socio-economic condition of borrower households of microfinance scheme before joining in Grameen Bank and at present. Both primary and secondary data have been used for the present study**.** To estimate the socio-economic impacts microfinance of GB on borrower households in the study area, the researcher has mainly used primary data, although secondary data have been used which are obtained from branch and zonal offices of GB. Primary data of this study have been collected in order to achieve these objectives for this study. In view of socio-economic condition of borrowers of GB, two types of villages are found in the study area such as middle class village and disadvantaged village. To collect primary data from the borrowers of GB, eight centres from the four branches under two areas have been selected through purposive sampling, where both types of villages are included. The total sample size was only 168 respondents through simple random sampling.

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The collected data were estimated using statistical techniques. Statistical analyses include mean, Chi-square test, analysis of variance (ANOVA) test and four Likert scales (four point-scales) such as Strongly increase (Strongly Agree), Moderate increase (Agree), Unchanged (Disagree) and Decreased (Strongly Disagree). They are used in order to summarize and interpret the data regarding socio-economic condition of the selected borrowers of GB. The borrowers showed the level of changes in 16 chosen indicators separately. Participation Impact Score (PIS) of selected change items show how much changes have occurred among the women borrowers after joining GB. The possible PIS of any change item ranged from a minimum of 168 to 672. In order to make meaningful comparison of data, the PIS for a particular change item was standardized by using the following formula (Labani et al., 2015). The formula can be written such as

$$\text{Standardized PIS (SPIS)} = \left(\frac{Obserbved\ \ participation\ impact\ \ score}{Possible\ \ participation\ impact\ \ score} \times 100 \right)$$

Brief description of major information about four branches under two areas of GB that the total number of clients in these four branches was 23231 (259 male numbers and 22972 female numbers) in 2008 which increased to 23477 (306 male numbers and 23477 female numbers) in 2016. Distributed loan amount by these branches was Tk.4239.61 lac in 2008, which decreased to Tk.4018.7 lac in 2016. In this context, they provided education loan which was 52.0 lac Tk. among 210 education loanees in 2016. Amount of loan distribution was 0.93 lac Tk. among 135 struggle number of members in 2016 according to collected information from four branches of Grameen Bank severally, Bogra, 2016.

2.1. Empirical Results of the Study

Empirical results of the study show in some sub-sections that are below as:

2.1.1. Socio-economic Effects of Microfinance of Grameen Bank on Borrower Households

The socio-economic status of all borrowers of GB is not the same in the study area. These features from borrower to borrower are varied. Most of the borrowers of Grameen Bank are less educated or uneducated people whose income, savings, asset's value are about near to the ground. A major part of GB borrowers are employed in household activities but they do not have contribution directly in increase on economic activities. Most of the borrowers depend on farm and non-farm related activities. But their land ownership is not mentionable and for this, a part of them are being transformed from farming activities to non-farm activities after joining in GB. After joining in GB, average change of socio-economic of borrower households shows in Table 1.1. It is found that total loan of borrower households increased about Tk. 19034.75 which indicates net change after joining in GB. It may be that most of the borrowers employed taking loan from GB in income generating activities after joining in GB.

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Table 1.1: Average change of Socio-economic Factors

Main Socio-economic Variables	Before of Joining in GB	At Present	Net change
	Mean	Mean	Mean
Average level of education of family	7.62	8.79	1.17
Family Size	3.91	3.19	-0.72
Total Income earners in the family	1.71	1.73	0.02
Total female income earners in the family	0. 15	0.24	0.09
Number of Livestock	0.99	1.39	0.4
Average monthly income	5558.79	6567.97	1009.18
Average monthly expenditure	4404.50	5132.08	726.58
Total savings	1961.87	3369.70	1405.83
Amount of loan	1975.25	21010.0	19034.75
Value of household assets	32853.5	40941.2	8087.7
Total amount of land	24.73	25.72	0.99
Housing Condition	55.30	80.81	25.51
Health Status	54.2	74.1	19.9
Source: Calculated from Field Survey Data, 2018			

Table 1.1 provides that net change of average monthly income and expenditure are Tk. 1009.18 and Tk. 726.58, respectively. It shows that net change of total savings and value of borrower household assets are Tk. 1405.83 and Tk. 8087.7, respectively. Above table indicates that socio-economic status of borrower households have become change positively and improved after joining in GB due to increasing economic activities. On the other hand, family size of borrower households became change negatively and decreased it after joining in GB for social conscious.

2.1.2. Net Socio-economic Effects of Microfinance of Grameen Bank on Borrower Households

This study investigates socio-economic effects that indicate change in their income, expenditure, education, occupation of borrowers, savings, and asset value of borrower households. The changes of these socio-economic factors are analyzed as below:

2.1.2.1. Average Change in Monthly Income of the Borrower Households

Income of borrower households is one important indicator of economic condition. Poverty is measured by income or poverty line among borrowers who are poor or non-poor. Average monthly income of borrower households before involvement with GB and at present is found in Table 1.2. It shows that about 14.16 percent of borrower households have change average monthly income after taking microcredit from GB, and whose income level was below TK. 2500. It is shown in Table 1.2 that before joining in GB, the highest percent of the borrower households had income in the range of TK. 2501-5000, and at present, 41.4 percent of the borrower households have income between in Tk. 5001-7500.

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Table 1.2: Average Change in Average Monthly Income of Borrower Households

Average Monthly Income (TK.)	Before	At Present	Net change of Respondents
	Respondents at Percentage	Respondents at Percentage	
0-2500	15.66	1.5	-14.16
2501-5000	55.56	23.2	-32.36
5001-7500	18.69	41.4	22.71
7501-10000	7.07	24.2	17.13
10001-12500	3.03	6.1	3.07
12501-above	0	3.5	3.5
Total	100	100	0
Source: Field Survey, 2018			

Above table shows that the highest level of average monthly income between in Tk. 12501- above, and it was only 3.5 percent at present and in this income level there had no income of borrower households before joining in GB.

2.1.2.2. Average Change in Monthly Expenditure of the Borrower Households

Most of the people are poor whose average monthly expenditure is low due to low income in the rural area of the study area of Bangladesh. Average change in average monthly expenditure is shown in Table 1.3 that before joining in GB, about 7.07 percent of borrower households have expenditure monthly in range of below TK. 1500, and at present only one percent of borrower households has expenditure at this level.

Table 1.3: Average Change in Average Monthly Expenditure of Borrower Households

Average Monthly Expenditure	Before	At Present	Net change of respondents
	Respondents at Percentage	Respondents at Percentage	
00-1500	7.07	1.0	-6.07
1501-3000	42.93	27.3	-15.63
3001-4500	36.87	34.8	-2.07
4501-6000	9.59	29.3	19.71
6001-7500	3.54	3.5	-0.04
7501- above	0	4.0	4.0
Total	100	100	
Source: Field Survey, 2018			

Table 1.3 provides that highest (42.93) percent of borrower households had expenditure in the range of Tk. 1501-3000, and at present, nearly 34.8 percent of borrower households have average monthly expenditure between in TK. 3001-4500. Based on Table 1.3, it indicates that average monthly expenditure of borrower households are being increased after involving in GB.

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2.1.2.3. Average Change in Occupation of Borrowers

Borrowers of Grameen Bank are employed in various occupations such as household service, day labour, petty business, weaving, and others beside household activities.

Table 1.4: Average Change in Occupation of the Borrowers

Occupations of Borrowers	Before	At Present	Net change of Respondents
	Respondents at Percentage	Respondents at Percentage	
Only housewife	84.8	72.2	-12.6
Housewife and day labour	6.1	7.1	1
Housewife and petty business	7.1	9.6	2.5
Housewife and embroidery	1.0	3.0	2
Housewife and weaving	1.0	4.0	3
Housewife and poultry raising	0	4.0	4
Housewife and sweet preparing	0	1.0	1
Total	100	100	0
Source: Field Survey, 2018			

Average changes in occupation of the borrowers are shown in Table 1.4 that nearly 84.8 percent of borrower's occupations were only in household service before joining in GB. At present, about 72.2 percent of borrower's occupations are only in household services. About 12.6 percent of borrower's occupation changed it after joining in GB. It indicates the net effect of borrower's occupation, and they employ in income generating activities such as petty business, embroidery, weaving, poultry raisings and others beside household activities

2.1.2.4. Average Change in Total Savings of the Borrower Households

It is found that savings of borrower households was increased after joining to GB. At present and before joining in GB, the savings pattern of borrower households is presented in Table 1.5. Borrowers can invest or expend it when they feel needy time. Before joining in GB, about 41.0 percent of borrower households did not have savings, and it indicates that the highest percent of borrowers had no savings in house or bank. Before joining in GB, the lowest percent of borrower households had savings in the range of Tk.9001-10500, but in this rage of savings at present, 5.6 percent of borrower households have savings.

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Table 1.5: Average Change in Total Savings of Borrower Households

Total savings	Before	At Present	Net change of Respondents
	Respondents at Percentage	Respondents at Percentage	
No savings	41.0	0	-41.0
1-1500	8.6	5.6	-3.0
1501-3000	21.7	22.7	1.0
3001-4500	12.6	23.7	11.1
4501-6000	9.1	24.8	15.7
6001-7500	2.5	11.1	8.6
7501-9000	3.0	6.5	3.5
9001-10500	0.5	5.6	5.1
Total	100	100	0
Source: Field Survey, 2018			

The above table provides that before joining in GB, 9.1 percent of borrower households had savings in range of Tk. 4501-6000. But at present 24.8 percent of borrower households have savings between in Tk. 4501-6000. It indicates that above 15 percent of borrower households were being increased savings *in* this level after involving with GB.

2.1.2.5. Average Change in Amount of Loan of Borrower Households

GB provides loan to poor women for income generating activities without any type of collateral, and those poor people have no access to conventional banks or financial institutions. The scenario of distribution of borrower households is shown in Table 1.6 that about 75.8 percent of borrower households have not taken any loan from GB with other institutions.

Table 1.6: Average Change in Amount of Loan of Borrower Households

Amount of Loan (Tk.)	Before	At Present	
	Respondents at Percentage	Respondents at Percentage	Net change of respondents
00	75.8	00	-75.8
0-8000	14.6	6.1	-8.5
8001-16000	9.1	40.4	31.3
16001-24000	0.5	16.2	15.7
24001-32000	0	21.2	21.2
32001-40000	0	11.1	11.1
40001-above	0	5.0	5
Total	100	100	
Source: Field Survey, 2018			

Table 1.6 provides that the highest percent (40.4) of borrower households from GB microfinance institution have taken loan in the range of Tk. 8001-16000 at present. But before joining in GB, only 9.1 percent of respondent households had taken credit in this level of loan. It is found that 21.2 percent, 11.1 percent and 5.0 percent of borrower households have taken loan from GB in range of TK. 24001-32000; TK. 32001-40000, and TK. 40001-above, respectively. But there were

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not respondents like to taken loan in those level of loan before involving in GB. Microcredit of GB has contribution on income generating activities and its effect on increasing income, savings and expenditure after taking loan (Bhuiya et al., 2016).

2.1.2.6. Average Change in Total Asset Value of Borrower Households

Assets of borrower households are calculated only in cash value. Here, as asset of borrower households is considered non-land assets like cattle, auto-rickshaw, sewing machine, shop, tractor, fishing net, boat, mobile-phone, television, fridge, CD player, furniture, etc.

Table 1.7: Average Change in Asset Value of Borrower Households

Asset value (TK.)	Before	At Present	Net change of respondents
	Respondents at Percentage	Respondents at Percentage	
Below 11000	20.2	6.0	-14.2
11001-22000	17.7	13.6	-4.1
22001-33000	18.7	16.7	-2.0
33001-44000	21.2	15.2	- 6.0
44001-55000	14.1	17.2	3.1
55001-66000	7.1	14.6	7.5
66001-above	1	5.6	4.6
Total	100	100	
Source: Field Survey, 2018			

Average change in asset value of borrower households is shown in Table 1.7 that about 26.3 percent of borrower households improved average change of asset value and transformed in the range of different levels such as Tk. 44001-55000; 55001-66000 and 66001-above, respectively, of borrower households. After joining in GB, the net average asset value of these borrower households was increased for buying various non-land assets such furniture. It is found in Table 1.7 that after joining in GB, about 7.5 percent and 4.6 percent net average change of borrower households was increased asset value between in Tk. 55001-66000 and 66001-above, respectively.

3. Results

3.1. Results of One-Way ANOVA test Analysis (Amount of Microcredit of Grameen Bank and Socio-economic Factors)

In the present study, ANOVA test as statistical tools shows that there is statistically significant correlation between amount of microcredit and socio-economic factors such as

Table 1.8: ANOVA Test of Microcredit and Socio-economic factors

Microcredit and socio-economic factors	df	F	Sig.
Microcredit and Level of Education	5	3.157	0.026
Microcredit and Occupation of Borrowers	6	2.751	0.014
Microcredit and Size of Family of Borrowers	5	2.507	0.032
Microcredit and Number of Income Earners in the Family	4	8.697	0.000

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Microcredit and Average Monthly Income	6	3.020	0.008
Microcredit and Average Monthly Expenditure	7	4.375	0.000
Microcredit and Savings of Borrowers' Household	3	9.322	0.000
Microcredit and Value of Assets of the Households	8	2.654	0.009
Microcredit and Cultivated Land by Borrowers	6	2.847	0.011
Microcredit and Length of membership with GB	6	5.019	0.000
Poverty and Housing Condition	6	1.891	0.084
Microcredit and Health Status	4	5.410	0.000
Source: Calculated from Field Survey Data, 2018			

level of education, occupation, size of family, number of income earners, average monthly income, average monthly expenditure, savings of borrower households, total asset value of borrower households, cultivated land and length of membership with GB. The results of the ANOVA tests are presented in the above Table 1.8

3.2. Distribution of Borrowers in Terms of Effect of Microcredit of GB for Economic Activities at Present

After taken microfinance from Grameen Bank, most of the borrowers were employed more in income generating activities beside household activities. At present, it has a positive contribution to participation in household decision making, disbursed a part of income for children's education and with its other factors. It is shown in Table 1.9 that the distribution of borrowers in terms of effect of microcredit of GB to increase economic activities is presented as below:

Table 1.9: Distribution of Borrowers in terms of Effect of Microcredit of GB for Economic Activities at Present (Changing borrower numbers and percentage)

	Impact on indicators	Strongly increase (4)	Moderate increase (3)	Unchanged (2)	Decreased (1)	Total Change
1	Improved participation in family decision-making	27	120	20	1	168
		16.1%	71.4%	11.9%	0.6%	100
2	Improvement in clothing status	33	85	50	0	168
		19.6%	50.6%	29.6%	0%	100
3	Increased in children education expenditure	20	82	46	20	168
		11.9%	48.8%	27.4%	11.9%	100
4	Improved access to society	19	79	63	7	168
		11.3%	47.0%	37.5%	4.2%	100
5	Improvement in society's attitude to own	20	103	39	6	168
		11.9%	61.3%	23.2%	3.6%	100
6	Improved access to treatment	32	83	49	4	168
		19.0%	49.4%	29.2%	2.4%	100
7	Improved understanding ability	26	103	39	0	168
		15.5%	61.3%	23.2%	0%	100
8	Increased reading ability	2	60	106	0	168
		1.2%	35.7%	63.1%	0%	100

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9	Increased writing ability	2	74	92	0	168
		1.2%	44.0%	54.8%	0%	100
10	Increased participation with social activities	43	99	24	2	168
		25.6%	58.9%	14.3%	1.2%	100
11	Improved relation with husband	38	89	30	11	168
		22.6%	53.0%	17.9%	6.5%	100
12	Improved relation with relatives	33	94	39	2	168
		19.6%	56.0%	23.2%	1.2%	100
13	Improved relation with neighbour	26	85	51	6	168
		15.5%	50.6%	30.4%	3.6%	100
14	Increased participation in social events	38	91	36	3	168
		22.6%	54.2%	21.4%	1.8%	100
15	Improved physical movement	19	119	29	1	168
		11.3%	70.8%	17.3%	0.6%	100
16	Improved counting ability	8	95	65	0	168
		4.8%	56.5%	38.7%	0%	100
Source: Calculated from Field Survey Data, 2018						

3.3. Result of Participation Impact Score (PIS) and SPIS

To investigate the changes in 16 selected indicators of borrowers after taking loan from GB due to increase economic activities beside household activities. The results of participation impact score (PIS) is shown that how much changes have occurred among borrowers after joining in GB for increase economic activities. Rank order was made based on total scores attained from ranking of borrowers. The possible PIS of any change item ranged from a minimum 168 to maximum 672. Standardized PIS (SPIS) = $\left(\frac{7560}{10752}\right)\times 100 = 70.31$. Result of Standardized PIS (SPIS) indicates overall significant that is 70.31 percent. After evaluating among results of PIS or SPIS, socio-economic effects of microfinance of GB have been ranked from highest 542 (PIS) (1st rank) indicated 80.65 percent (SPIS) for improved participation in family decision-making to lowest 396 (PIS) (16th rank) indicated 58.93 percent for improved counting ability.

Table 1.10: Effect of Participation Items of the Borrower Households Following PIS at Present

SI. NO.	Effect on indicators	PIS	SPIS	%	Rank
1	Improved participation in family decision-making	542	80.65	7.17	1
2	Improved physical movement	524	77.98	6.93	2
3	Increased participation with social activities	519	77.23	6.86	3
4	Increased participation in social events	500	74.40	6.61	4
5	Improved relation with relatives	494	73.51	6.53	5
6	Improved understanding ability	491	73.07	6.49	6
7	Improved relation with husband	490	72.92	6.48	7
8	Improvement in clothing status	487	72.47	6.44	8
9	Improved access to treatment	479	71.28	6.34	9
10	Improvement in society's attitude to own	473	70.39	6.26	10
11	Improved relation with neighbour	467	69.49	6.18	11

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12	Improved access to society	446	66.37	5.89	12
13	Increased in children education expenditure	438	65.18	5.79	13
14	Increased writing ability	414	61.61	5.48	14
15	Increased reading ability	400	59.52	5.29	15
16	Improved counting ability	396	58.93	5.24	16
Source: Calculated from Field Survey Data, 2018					

4. Conclusion and Recommendations

From the data analysis of socio-economic and demographic feature it is shown that most of the borrowers have different education, income, income earning member, expenditure, savings, asset, and housing condition, etc. These have links with microcredit borrowing and in turn socio-economic change. Most of the socio-economic features of borrowers are statistically significant with amount of loan at present that is tested by ANOVA tests. It is also found that socio-economic conditions of the borrowers have improved more at present compared to before involving with GB. The borrowers took microcredit from GB and used it in productive sectors and it is found that socio-economic have mentionable improved in the present study area. Some recommendations presents below as:

- **Firstly,** Most of the borrowers are uneducated and less educated women. Microfinance institutions should organize more training and education oriented programmes.
- **Secondly,** loan size is small that is not sufficient for any capital generating business such dairy farm. The microfinance institutions should extend loan size rationally and quickly.
- **Lastly,** the institution should set up rate of interest compared to commercial banks. Installment should start at least two months later. Government should provide some special facilitates and encourage microfinance institutions so that they provide loan and financial service to energetic and poor people who are agree to employ themselves in income generating activities.

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