

Socio-economic Impact of IBBL Microfinance on Rural Women in a Selected District of Bangladesh

Ishrat Jahan¹ and Md. Mamun-ur-Rashid^{2*}

¹*School of Business, Bangladesh Open University and General Banking Department,
Janata Bank Limited, Bangladesh.*

²*Department of Agricultural Extension and Rural Development, Patuakhali Science and Technology
University, Bangladesh.*

Authors' contributions

This work was carried out in collaboration between both authors. Author MUR designed the study, wrote the protocol, supervised the work, perform analysis and edited the manuscript. Author IJ carried out all the field work, search literature and write first draft. Both the authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJAEES/2015/17356

Editor(s):

(1) Angel Paniagua Mazorra, Centre for Human and Social Sciences, Spanish Council for Scientific Research, Spain.

Reviewers:

(1) Anonymous, China.

(2) Sayed Samer Ali Al-shami, Universiti Teknikal Malaysia Melaka, Malaysia.

(3) Sanjay Kanti Das, Department of Commerce, Gauhati University, India.

Complete Peer review History: <http://www.sciencedomain.org/review-history.php?iid=1059&id=25&aid=8873>

Original Research Article

Received 10th March 2015
Accepted 6th April 2015
Published 18th April 2015

ABSTRACT

Aims: Rural Development Scheme (RDS) under Islami Bank Bangladesh Limited (IBBL) is an innovative typology of microfinance, envisaged to answer the need of rural poor. This study was planned to reveal the socioeconomic impact of RDS microfinance on the women beneficiaries in a selected district of Bangladesh.

Place and Duration of the Study: This study was conducted in the district of Barisal. Data were collected from July to August, 2014.

Methodology: This study was mainly based on primary information, however the secondary information was also collected to compare the before and after situation of loan withdrawal. To achieve study objectives data was collected from 206 randomly selected, RDS beneficiary women who engaged with the program for at least one year. Descriptive statistics such as mean, median, mode, standard deviation, etc., were used to describe the selected characteristics of the

*Corresponding author: E-mail: murashidpstu@gmail.com;

respondents. Z-statistics was employed to compare the before and after situation of loan withdrawal. This study also used OLS regression to see the contribution of selected factor on the improvement of women beneficiaries.

Results: The values Z statistics confirmed that highest change was taken place in social capital development followed by yearly income from non-agricultural sources, ownership of sanitary toilet, and ownership of tube-well. In case of social capital highest improvement was found in participation in family-decision making followed by self confidence, and consciousness about self-economic development. OLS regression confirmed that among the eight selected variables three variables, namely the number of earning members per family, the total amount of loan received, and yearly expenditure together can explain 46.5% variation in income growth.

Conclusion: This study analyzed both monetary and social impacts of RDS microfinance and arrived at a general conclusion that this program grossly has a remarkable impact on selected socioeconomic aspects of the women clients.

Keywords: RDS; IBBL; rural women; socioeconomic impact; Bangladesh.

1. INTRODUCTION

Bangladesh is an over-populated agro-based developing country. Development of the socioeconomic condition of Bangladesh largely depends upon the development of its rural areas. In rural Bangladesh, women play a dominant but largely unrecognized role in agricultural and economic productivity. Women play a crucial role in domestic duties such as washing utensils, cleaning home compounds, livestock and poultry management and feeding as well as post-harvest activities, guest entertainment, decision-making, and technology adoption [1]. As per findings of several studies, 43% of rural women are contributing to agriculture and fisheries-related activities alongside their household responsibilities [2].

Women in most parts of the world are less privileged and enjoy unequal status compared to their male counterpart [3]. Similarly, as a result of conducive socio-cultural environment for pervasive gender discrimination, girls and women in Bangladesh face bundle of obstacles to their development. Girls are often considered to be financial burdens on their family and receive less investment in their health, care and education [4]. Although, the ability of women to acquire land, property, credit, education, skills and paid job can uplift their status to a large extent. Ensuring women access same as man to agricultural resources and inputs could increase women's farm production by 20-30 per cent and can reduce the number of hungry people in the world by 100-150 million [5]. Nonetheless, women's access to microfinance benefits women, their families, and communities by enhancing income, awareness, and bargaining power, increasing resources available to families

for improved nutrition and education, growth in local economies through increases in women's spending, and an expanded view of social and economic norms that relate to women [6].

Reduction of rural-urban disparity and equitable distribution of income is crucial for balanced economic growth. To reach this objective IBBL (Islami Bank Bangladesh Limited), the largest private sector bank in Bangladesh, started a scheme in the name and style of "Rural Development Scheme (RDS)" in 1995. It has been treated as the first Islamic Microfinance Model in the country and abroad. The basic view of this project was to cater investment needs of the agriculture and rural sector to create opportunity for employment generation and raising the income of the rural people with a view to alleviate poverty [7]. At present RDS of IBBL extends to all the districts of Bangladesh through 240 different branches of the Bank. Until 30 June, 2014 IBBL under RDS has distributed (cumulative disbursement) 87,558.86 million Taka (1,122.54 million USD) among 8, 99,237 people of which 82% are women [8].

In Bangladesh, there is a strong demand for Islamic microfinance products and services, but the growth of this sector has been slow. The main reason behind this might be that Islamic microfinance services are generally provided by non-government organizations (NGOs), who generally possess inadequate technical expertise or funding to ensure the proper implementation and sustainability in serving the hardcore poor. In contrast, the Islamic commercial banking sector, which provides Islamic products to non-poor, has been experiencing a remarkable growth in the past three decades [9]. Actually, these Islamic commercial banks have adequate technical

expertise and capacities along with an ample amount of resources. However, the lion proportions of these Islamic commercial banks do not serve the poor nor do they share technical knowledge and expertise with other MFIs. In this circumstance, it is necessary to see the impact of Islamic microfinance to assist national and local governments to introduce policies, encourage and provide incentives to Islamic commercial banks to start investing in the poor, share their knowledge, and to augment their services to underprivileged clients in order to the economic development of the poor community.

1.1 Review of Literature

1.1.1 Microfinance and beneficiary's development

Microfinance is a facility that helps people, especially rural poor to get a small loan to start a business, pay for school fees, procure housing or receive healthcare [10]. Such an initiative is a tool in changing the poverty trend in view of improved facilities to hear the challenge posed by startup capital. Since the beginning of trade microfinance has been changing people's lives and revitalizing communities [11].

Microfinance programs are generally found to be an effective investment in reducing poverty and improving children's schooling and nutrition status [12-14]. Reviewing a number of evidences of microfinance program access in the developing world [15] concluded that micro-finance programs have a positive impact in reducing vulnerability and poverty. Several other studies also confirmed that women's borrowing is positively associated with self-reported measurement of empowerment [16,17].

1.1.2 Women's access to credit in Bangladesh

Globally, women appear to form the largest section of poor and vulnerable group [18]. Resembling the same scenario, women in Bangladesh have been struggling for equal rights since her birth in 1971. Women in Bangladesh are fighting to end the violence and oppression, in order to erase gender gap. They also have less access to paid labor and are paid less compared to male despite findings that women "tend to work harder than men and thus increase their paid and unpaid labor in case crises and to maintain households [18].

Women's access to formal and informal credit is very crucial for rural development in Bangladesh. Numerous studies [19,20] have identified the lack of women micro and small entrepreneurs access to formal or informal credit cause a major impediments in their development. As per the findings of studies, in Bangladesh 76.4 percent women micro entrepreneurs have lack of capital, especially in the startup period [21].

Credit constraints has gender biased characteristics [22]. The legal, social, cultural, and economic conditions prevailing in a society shape women's demand for and supply of capitals. Misunderstanding of women as small and inexperienced borrowers, inspire financial institution to put constraints on supply of fund for women [23,21]. After reviewing available relevant literatures [24-26], Frltschner [21] has identified some factors liable for credit constraints for women. The factor encompasses the collateral requirement, the difficulty in finding a guarantor, the requirement of authorization by the husband or a male relative, financing preference for the activities that are operated by male, lack of information on the availability of funds, high transaction cost of receiving loans, risk averse characteristics of women, household work involvement, low literacy rate and lack of confidence about applying for the loan.

1.1.3 Impact of IBBL rural development scheme on client development

Rural Development Scheme under IBBL has a positive impact both on social and economic aspects of its clients. Jinan et al. [27] in their study on impact of RDS of IBBL on its beneficiaries in the Mymensingh Sadar area found that the beneficiaries have a significant rise in their income (61 per cent in agriculture sector and 89 per cent in the business sector). According to estimates of Uddin [28], RDS has a remarkable positive impact on clients food intake, housing, education, clothing, taking medical treatment, use of toilet, use of clean pure water, income and expenditure. With the objective of assessing the impact of RDS on rural poor's livelihood, Rahman & Ahmed [29] considered 1020 clients across the country and found that household income, productivity of livestock and crops, expenditure, and employment had increased significantly due to influence of investing money. The same study further revealed that socioeconomic factors like age, number of family members in farming, total land size and client's ethics and morals had a positive

and significant influence on household income. Rahman [30] showed that households experienced a remarkable rise in their income after joining RDS for a period of three years or more. As stated by Habib in UNDP [31], the RDS program has a significant positive effect on the respondent's income, employment, and asset position. Badiuzzaman in UNDP [31] also reveal similar findings, where RDS was able to initiate the positive impact on income and asset position of the beneficiaries. Halimuzzaman et al. [32] study on progress of the IBBL Rural Development Scheme concluded that the microfinance investment system of RDS has been establishing an important impact on income increase as well as eradicating poverty style of the beneficiaries living at Sadar Upazila of Kushtia district in Bangladesh. Success story of a woman engaged with RDS program of IBBL is presented in Box 1. However, according to Uddin [28], along with the several benefits, RDS program in Bangladesh face some problems as follows:

1. Scope of RDS is narrow, so IBBL cannot settle RDS in Shariah prohibited sector.
2. Entrepreneurs don't have a clear concept about Shariah and RDS mode. As a result, they found the investment procedure quite complicated compared to other MFI.
3. IBBL precedes RDS operation within a limited number of investment modes.
4. Lack of Islamic banking rule creates hurdles for smooth running of IBBL.

1.2 Objectives of the Study

The general objective of this study is to assess the socioeconomic impact of IBBL microfinance

on rural women clients. However, the specific objectives are:

1. To assess the socioeconomic impact of IBBL microfinance on the rural women in Barisal district.
2. To describe selected socioeconomic characteristics of the women client
3. To reveal the contribution of selected determinants on the improvement of the socioeconomic status of rural women.

1.3 Conceptual Framework

Islamic microfinance in Bangladesh is a recent intervention. Due to outstanding growth and recovery rate, Islamic microfinance has gained attention since its inception. Particularly, RDS program under IBBL has captured attention of many researchers due to its exceptional growth compared to other traditional microfinance institutions. However, this rapid growth can be attributed to its impact on reducing poverty by creating both direct and indirect benefits for beneficiaries of which majority are women. Microfinance programs assist beneficiaries to have access to finance without providing collateral for the microfinance providers. Financial assistance from credit providers increases their ability to invest more in income generating activities. Investment in income generating activities can increase earning of the clients. This added income may ultimately improve their purchase ability. Increased income would enable them to spend more on food and other daily necessities, Nonetheless, increased income can ensure safe water and improved sanitation by enhancing ownership of assets such as tube-well, sanitary toilet, etc.

Lovely Begum resides in the Chinispur village under Narsingdhi district. She is a client of the RDS program under IBBL Narsingdhi branch. This woman is involved with agricultural activities for last ten years. She does not possess any land and couldn't even manage three meals a day. She became a member of RDS in 1996. With 5,000 Taka of first installment, she bought a sewing machine, besides, she was also involved with agricultural farming at the same time. Afterwards, she took several installments ranging from Tk. 10,000 to Tk. 25,000 and amplifies the area of her agricultural activities. She also took skill development training under the RDS program. Basically, she is a tenant farmer. Due to her success in agricultural activities, Department of Agricultural Extension prized her as the best farmer. DAE sent her to China in 2012 for improved training as a result of consistent success in agricultural activities. After coming back from China with 8 days successful training, she has started vegetable gardening, papaya, jute and seasonal crop cultivation. Finally, she took 7th and 8th installment from RDS equal to 50 and 60 thousand taka. With the profit from her ventures, she made two tins shed buildings, bought a paddy threshing machine, and irrigation pump. She is grateful to RDS program under IBBL for her success and development.

Box 1. Success story of lovely begum

Success of beneficiaries with microfinance can be linked with numerous personal and institutional factors. For example, amount of received credit is very crucial as benefit is directly correlated with investment amount. Factors like age, education, family farm size, number of earning members, etc., are also important. However, microcredit programs have several other benefits rather than increasing income, expenditure, and assets.

For receiving microfinance, the women beneficiaries have to work with formal institutions emerged from outside of her known territory. Along with management of income generating activities, she has to maintain close contact with RDS field officers and with other members of her group. Occasionally, she has to visit bank offices if needed. All these activities can certainly contribute to her social capital development, such as increasing awareness, communication ability, self-confidence and decision-making ability.

Islamic microfinance in Bangladesh has an excellent track record of success. Lamentably, very few studies have so far focused the impact

of the RDS program of IBBL on women beneficiaries. Nonetheless, most of the studies are constrained by concentrating on monetary perspectives. Very few studies have considered social dimension as a criteria for measuring success. However, it is of urgent need to reveal the impact of RDS from both monetary and social perspectives to guide the future trend of Islamic microfinance development in Bangladesh. A diagrammatic representation of conception is provided in Fig. 1.

2. METHODOLOGY

This study was conducted based on Barisal district. Barisal is one of the major divisional districts of Bangladesh. Socioeconomic condition of this district is moderate and women are comparatively disadvantaged in this region. All the clients linked with RDS program of IBBL under Barisal district formed the population of this study. Among the three branches dealing with RDS in Barisal, one branch was randomly selected. From the selected branch, 50 groups were randomly selected which form the population of the study. Hence,

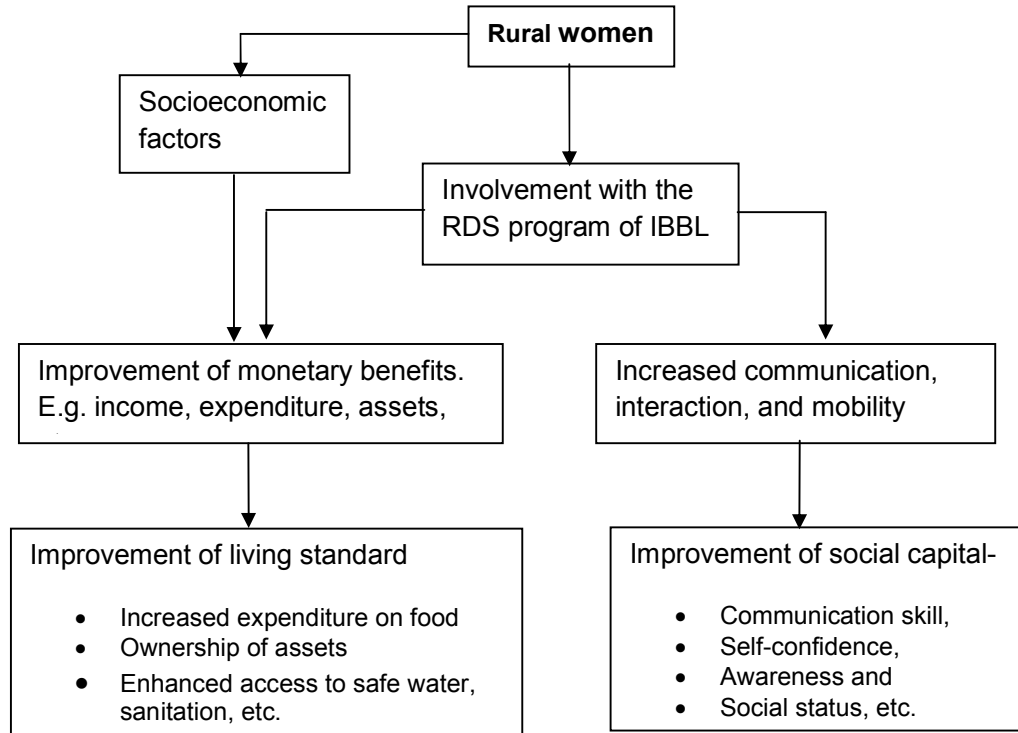


Fig. 1. Conceptual framework of the study

the total population of the study was approximately 750. It is important to note that on an average, there are 15 members in a group. To decide upon the sample this study selected 30 percent of the population following a random table. So, the approximate size of sample for the study was 225 respondents. A structured questionnaire was used to collect primary data from the respondents. It is noteworthy to mention that among the 225 questionnaires 206 were valid. Systematic study of available records was also employed to collect baseline information, preserved by the bank during giving credit to each selected respondent. The Impact of the RDS program was measured both on monetary and social aspects. Monetary aspects include yearly income from agricultural source, yearly income from non-agricultural sources, yearly expenditure, ownership of tube-well, ownership of sanitary toilet, family farm size, etc.

The significance of changes between situation, before and after receiving credit was measured using Z statistics. The independent variables of the study were personal and institutional factors such as age, family size, number of earning members, education, total amount of loan received, length of service enjoyment, yearly expenditure, and family farm size. However, the dependent variable of the study was growth in total yearly income. Ordinary Least Square Regression is executed to see the contribution of selected determinants on improvement of socioeconomic status. All the independent and dependent variables were measured based on appropriate scales (See appendix I). Descriptive statistics such as number, percentage distribution, mean, standard deviation, rank order, etc. were used in describing dependent and independent and variables. All the statistical analyses except z statistics were done using SPSS 16.0.

2.1 Regression Model of the Study

Ordinary Least-Squares (OLS) regression is a generalized linear modeling technique that may be used to model single response variable which has been recorded on at least an interval scale. The technique can be applied to single or multiple explanatory variables and also categorical explanatory variable if properly coded [33]. If the relationship between a continuous response variable (Y) and continuous explanatory variable (X) is linear, it may be represented mathematically using the straight line equation as,

$$Y = \alpha + \beta X$$

The OLS regression model can be extended to accommodate multiple explanatory variables by simply adding additional variables to the equation. The form of the equation can be as follows,

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

In case of this study, the model can be expressed as

Growth in total yearly income (Y) = $\alpha + \beta_1$ (Age) + β_2 (Family size) + β_3 (Total number of earning members) + β_4 (Education) + β_5 (Total amount of loan received) + β_6 (Duration of enjoying service) + β_7 (Family farm size) + β_8 (Yearly expenditure)

Where,

α = constant term

β_1, \dots, β_7 = Co-efficient of respective variable

2.2 Measurement of Social Capital Improvement

Social capital was measured based on 6 selected aspects related to participation in family decision making, consciousness, communication skill, and social status (Please see Table 4 for the questions related to social aspects). Improvement of social aspect was measured by setting two sets of responses on a five point continuum (before and after situation of receiving credit) based on a similar set of questions. Because, the Bank does not preserve any baseline information regarding social capital [SA]. The average score of each aspect after receiving credit was deducted from average score before receiving loan.

Improvement of SA = Present status of SA - Status of SA before receiving credit
Average score of each aspect was calculated based on the following formula,

Average score for each aspect =

$$\frac{VH \times 5 + H \times 4 + M \times 3 + L \times 2 + VL \times 1}{206}$$

Where,

VH = Total number of responses in very high category

H = Total number of responses in high category

- M= Total number of responses in moderate category
 L= Total number of responses in low category
 VL= Total number of responses in very low category

3. RESULTS AND DISCUSSION

3.1 Profile of the Respondents

Findings in Table 1 showed that the mean age of the women beneficiaries is 34.35 years and almost all of them are married. Similar to this finding, Uddin [28] in analyzing the experience of Rural Development Scheme (RDS) by IBBL, also found that 96% of the women clients are married. Average earning members per family was 1.24 persons while the number of members per family was almost five. It is further revealed that little more than three fourth of the women beneficiaries invested their microcredit in the business sector. Uddin [28] in his study also found that 76% of the borrowed money spent in off farm activities. In terms of education, the majority of the clients had secondary level education and 13% of the clients had education up to the Higher Secondary Certificate (HSC) or above level. On an average, clients received the total amount of loan equal to 33.34 thousand and 76.7 percent of them were enjoying the service of RDS for more than 3 years. The farm size statistics represented that almost all the clients belonged to either landless or marginal category.

3.2 Improvement of Economic Aspects

Improvement of socioeconomic aspects was measured based on some selected aspects. Z statistics were employed to compare the before and after situation of receiving RDS microfinance. Data presented in Table 2 represented that major improvement was happened in income from non-agricultural source followed by ownership of sanitary toilet, ownership of tube-well and yearly expenditure. A detail of improvement in ownership of tube-well and ownership of sanitary. Toilet is presented in Table 3. However, two bottom level aspects of improvement were yearly income from agricultural sources followed by the family farm size. It is noteworthy to mention that all the selected aspects showed a positive significant Z score, hence it is clear that there is a remarkable difference in before and after situation of receiving RDS credit in all the selected aspects.

Echoing our findings, Uddin [28] also identified a remarkable improvement of yearly expenditure in food and clothing along with ownership of tube-well and use of sanitary latrine after receiving microfinance from RDS. Jinan et al. [27] in their study in Mymensingh Sadar Upazila also revealed that the respondents (both agriculture and business sector microfinance receiver) had a significant improvement of their income and family asset positions after receiving microfinance from RDS program of IBBL. Studying 1020 RDS clients across Bangladesh, Rahman et al. [34] claimed that the respondents experienced a significant improvement of their income and expenditure due to involvement with RDS programs.

3.3 Improvement of Social Capital

A positive significant change was taking place in after and before situation of receiving microfinance. Change of each aspect based on after and before situation of receiving microfinance is presented in Table 2. Data presented in the concerned Table exhibit that highest change was occurring in the participation in family decision making followed by an increase of self-confidence, and consciousness in self economic development. It is further revealed from the same table that other aspects such as improvement of consciousness about the importance of education, social status and communication skill had an almost similar amount of average change after receiving credit. In line with our findings, Jinan [35] in her study on RDS in Mymensingh district found that involvement of women with RDS significantly increased their participation in family decision making.

3.4 Determinants of Income Growth

The regression analysis was done to examine the impact of selected factors on growth of income. The selected factors were age, family size, number of earning members per family, education, total amount of loan received, duration of enjoying service, family farm size and yearly expenditure. The results of multiple regressions are shown in Table 5. The results in the table mirrored that among the selected variables number of earning members, the total amount of loan received, and family farm size were positively related to the growth income at $P < 0.01$ level. The adjusted R^2 for the model was 0.465 indicating that number of earning members per family, the total amount of loan received and

yearly expenditure together contributed to 46.5% of income growth. However, the multiple regression model had an $F_{3, 203}$ value of 60.34 and a p value of 0.000. The model further revealed that yearly expenditure ($\beta = 0.569$, $p < 0.000$) had the highest contribution for income growth followed by the total amount of loan

received ($\beta = 0.158$, $p < 0.003$) and number of earning members per family ($\beta = 0.146$, $p < 0.007$). Similar to our findings, Jinan et al. [27] in their study also found that investment amount and yearly expenditure are positively related to savings of RDS members in Mymensingh Sadar Upazila.

Table 1. Distribution of the respondents according to personal characteristics (N=206)

Variable	Categories	Frq.	%	Mean	Std.	Med	Range
Age				34.35	7.39	35	20-60
Marital status	Married	203	98.5				
	Unmarried	1	0.5				
	Widow	2	1				
Family size				4.65	1.16	4	2-11
Earning members / family				1.24	0.540	1	1-4
Loan investment sector	Business	159	77.2				
	Agriculture	36	17.5				
	Others*	11	5.3				
Education	Primary(1-5)	64	31.1	7.28	2.36	7	3-18
	SSC**(6-10)	129	62.6				
	HSC*** & above(>10)	13	6.3				
Total amount of loan received				33.34	25.29	25	5-160
Duration of enjoying service	1-2 yrs	8	3.9				
	2.1-3 yrs	40	19.4				
	3.1-4 yrs	86	41.7				
	>4 yrs	72	35.0				
Family farm size	Landless (0.01-0.02 ha)	65	31.9	0.108	0.117	0.06	0.01-0.72
	Marginal (0.021-0.60ha)	140	67.6				
	Small (>0.600ha)	1	0.5				
Yearly expenditure				123.2	50.92	120	50-420

Note: *Others include auto three-wheeler purchase, motorbike purchase, charity work, construction materials purchase, etc., **Secondary School Certificate (SSC), ***Higher Secondary School Certificate (HSC); Source: Field survey, 2014

Table 2. Comparison of status of different select variables before and after taking part in RDS program of IBBL (N=206)

Variable name	Before (B)		After(A)		Mean gap (A-B)	Z	P
	Mean	Std.	Mean	Std.			
Yearly income from agriculture sources	22.46	34.11	34.33	51.20	11.87	2.76	0.000
Yearly income from non-agriculture sources	116.65	50.38	157.56	82.93	40.91	6.05	0.000
Yearly expenditure	121.24	47.26	144.25	62.34	23.01	4.22	0.000
Ownership of tube-well	0.08	0.275	0.383	0.487	0.30	4.46	0.000
Ownership of Sanitary toilet	0.93	0.288	1.11	0.372	0.18	5.63	0.000
Family farm size	0.09	0.095	0.111	0.123	0.021	3.10	0.000
Social capital	14.18	4.14	22.19	3.67	8.01	20.74	0.000

Source: Field survey, 2014

Table 3. Comparison of respondents based on ownership of tube-well and sanitary latrine before and after receiving loan (N=206)

	Ownership	Before receiving loan		After receiving loan	
		Frequency	Percent	Frequency	Percent
Tube-well	None	189	91.7	127	61.7
	At least one or more	17	8.3	79	38.3
Sanitary latrine	None	15	7.3	4	1.9
	At least one or more	189	91.8	201	97.6
	Missing values	2	1	1	0.5

Source: Field survey, 2014

Table 4. Improvement of social capital after receiving loan from IBBL (N=206)

Sl. No.	Aspect	Avg. Score ^B	Avg. Score ^A	Difference (A-B)	Rank
1	Participation in family decision making	2.43	3.99	1.56	1
2	Consciousness in self economic development	2.42	3.81	1.39	3
3	Self-confidence	2.44	3.90	1.46	2
4	Consciousness about importance of education	2.38	3.55	1.17	6
5	Level of social status	2.32	3.53	1.21	4
6	Personal communication skill	2.17	3.37	1.20	5

Note: B= before receiving loan, A= after receiving loan; Source: Field survey, 2014

Table 5. Contribution of different selected variables on income growth (N=206)

Variables	B	SE	β	t	P
Number of earning members	15.58	5.71	0.146	2.72	0.007
Total amount of loan received	0.360	0.121	0.158	2.97	0.003
Yearly expenditure	0.645	0.062	0.569	10.34	0.000

Source: Field survey, 2014

4. DISCUSSION

Bangladesh is struggling with equitable development, especially in rural areas. Inequitable development is prevalent not only between male and female, but also among women themselves based on socioeconomic status. Married women from marginal and landless farm families had to face a significant challenge, especially due lack of productive resources accompanied by limited income. The findings of the study confirmed that IBBL is serving the most vulnerable section of the society, married women from landless and marginal farm families. Income from both agriculture and non-agricultural source has been changed significantly after receiving the loan. However, income from non-agricultural sources showed highest change. It is logical, as the majority of the clients invest their money in non-agriculture sector. Nonetheless, almost all the clients possess very little to small amount of land that is not suitable for agricultural ventures.

Beneficiaries also had a remarkable change in their yearly expenditure. Normally, expenditure is increased when income is increased. In general, this increased expenditure goes for buying quality food, clothes and other resources such as land, furniture, etc. Uddin [28] in his study in Rajshahi branch found that the clients spend their increased income mainly in purchasing cloth and quality food.

Ownership of tube-well was also increased noticeably. It indicates that RDS microfinance is playing a crucial role in ensuring safe drinking water for its clients. Ownership of tube-well does not mean safe water only for that particular loan receiving family. As in rural areas, many people share water from the same tube-well, so RDS microfinance is ensuring safe drinking water not only for its clients but also for other rural people. Similarly, RDS microfinance is playing a vital role in improving rural health status. The findings of this study suggested that finance receiver had a significant raise in their ownership of sanitary toilet. The government of Bangladesh along with numerous native and foreign development

organizations is encouraging rural people to use the sanitary toilet. This is a prerequisite for rural health as well as for rural environmental development. The findings of this study provide concrete evidence that RDS microfinance is playing a crucial role in rural health development. Ownership of land asset was also increased, which in turn ensured women access to productive resources and income generating activities. Nonetheless, ownership of assets is also important to enhance women empowerment.

In exception to other studies evaluating the impact of RDS under IBBL, this study focuses on impact on social capital. Major improvement was happened in participation in family decision making along with self-confidence and consciousness about self-economic development. It is important to note that all the selected aspects of social capital development are actually related to women empowerment. In fact, there are three important dimensions of women empowerment i. e. agency, structure and relations. Agency means her own aspirations and capabilities such as skill, education, legal and right awareness. Structure connotes the environment that surrounds and conditions her choice for e.g. access to justice, market accessibility, etc. Relationship on the other hand means the power relations through which she negotiates her path, i.e. consciousness of self and others as independent¹. The findings of the study represented that RDS program is playing a crucial role in the empowerment of rural women, especially in agency and relationship dimension. However, in short, the RDS program under IBBL had both tangible and intangible positive impacts on rural women. The Government of Bangladesh should strongly back up amplification of this program to each corner of the country to materialize their promise of equitable development for all people irrespective of class and religion.

5. CONCLUSION

The findings of this study along with almost all the other literature review compiled in this study confirmed that the RDS program under IBBL is an important tool for rural socioeconomic development. Nonetheless, it is clear from this study that RDS program is serving the most

vulnerable women clients in rural setting. The fact that Islamic microfinance has some inherent differences with the other traditional microcredit system was also established. The comparison of situation before and after receiving loan based on Z statistics represented that major difference was taken place in social capital development followed by increase of income from non-agricultural sources, ownership of sanitary toilet, ownership of tube-well and yearly expenditure. Yearly incomes from agricultural sources, family farm size were also significantly increased. OLS regression model mirrored that number of earning members per family, the total amount of loan received, and family farm size can describe almost half proportion of changes in income growth. In social aspects major changes was happened in participation in decision-making, self-confidence, and consciousness in self-economic development.

6. RECOMMENDATIONS

1. Microfinance program in the style of RDS is playing a crucial role in poverty reduction from its inception. The findings of this study also confirmed that this program is addressing the need of women from marginal and small farm families with low income. Nonetheless, this program can be suitable for a specific group of people posses strong Islamic believes. Hence, the Bank should invest this program to all of its branches to bring more people under the umbrella of Islamic microfinance. Government should promote and patronize Islamic microfinance for equitable rural socioeconomic development. Special policy development is needful for supporting growth of Islamic microfinance institutions, especially Islami Bank Bangladesh Limited (IBBL).
2. The total amount of loan received is a crucial determinant for income growth. Indeed, IBBL launches RDS program almost before two decades [7]. In the meantime, due to global and national crisis, consumers experienced a significant price hike in almost all the sectors. The average inflation rate in Bangladesh from 1994 to 2014 is 6.21 percent. Lamentably, the amount of credit distributed under the RDS program has not changed significantly with the change of economic situation. In these circumstances, it is so far essential to increase the amount of

¹ Please see <http://pqdl.care.org/sii/Pages/Women%27s%20Empowerment%20SII%20Framework.aspx> for details of women empowerment dimensions

Islamic microfinance especially at the first installment.

3. Development of personal communication skill and consciousness about the importance of education showed least improvement compared other aspect of social capital development. So, Training and motivation program emphasizing communication skill and education development is very crucial. IBBL along with other government and non-government institutions should come forward with special training and motivation program with the purpose of the development of communication skill and awareness of rural women.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Paul DC, Saadullah M. Role of women in homestead small farm category in an area of Jessore, Bangladesh. *Livestock Research for Rural Development*. 1991; 3(2). Available: <http://www.lrrd.org/lrrd3/2/bang1.htm>
2. Shelly AB, Costa MD. Role of women in fisheries aquaculture: Initiatives of CARITAS Bangladesh. *Development in Regional workshop on the role of Global Symposium on Women in Fisheries, Asian Fisheries Forum, Taiwan*; 1995.
3. Rahman HM, Naoroze K. Women empowerment through participation in aquaculture: Experience of a large-scale technology demonstration project in Bangladesh. *J. Soc. Sci.* 2007;3:164-171. DOI: 10.3844/jssp.2007.164.171.
4. UNICEF. Women and girls in Bangladesh; 2010. Accessed 11 October 2014. Available: http://www.unicef.org/bangladesh/Women_and_girls_in_Bangladesh.pdf
5. IFAD. Women and Rural Development; 2011. Accessed on 10 October 2014. Available: http://www.ifad.org/pub/factsheet/women/women_e.pdf
6. Duscha M. MICROCAPITAL STORY: A Brief Survey on the Impact of Microfinance on Women Part 1 of a 3-Part Series: Targeting Women and its Effect on the Wellbeing of Poor Families; 2008. Accessed 12 October 2014. Available: <http://www.microcapital.org/microcapital-story-a-brief-survey-on-the-impact-of-microfinance-on-women-part-1-targeting-women-and-its-effect-on-the-wellbeing-of-poor-families/>
7. IBBL. Introduction: Rural Development Scheme (An Islamic Microfinance Model); 2014a. Accessed 13 October 2014. Available: <http://www.islamibankbd.com/rds/introduction.php>
8. IBBL. Performance of RDS; 2014b. Accessed 13 October 2014. Available: <http://www.islamibankbd.com/rds/performance.php>
9. UNDP. Gender equality and UNDP, First facts. 2011. Accessed 2 December 2014. Available: www.tinyurl.com/undp201107ff.
10. Microfinance vital to economic growth. *The Daily Monitor*. 2005;15.
11. Luyirika MN. The role of microfinance in the socio-economic development of women in a community: A case study of MPIGI town council in Uganda. Master Thesis, Subject of Development Studies, University of South Africa; 2010.
12. Morduch, Jonathan, Barbara Haley. Analysis of the effects of microfinance on poverty reduction. Working Paper No. 1014. New York University Wagner Working Paper Series; 2002.
13. Kabeer N. Mainstreaming gender in social protection for the informal economy. Commonwealth Secretariat. London; 2008.
14. Khandker Shahidur R. Microfinance and poverty: evidence using panel data from Bangladesh. *World Bank Economic Review*. 2005;19(3):1-25.
15. Zaman Hassan. Assessing the poverty and vulnerability impact of micro-credit in Bangladesh. A case study of BRAC. World Bank DECVP Working Paper. Washington, D.C.: World Bank; 1999.
16. Pitt Mark M, Shahidur R, Khandker, Jennifer Cartwright. Empowering women with micro finance: Evidence from Bangladesh. *Economic Development and Cultural Change*. 2006;54:791-831.
17. Nessa T, Ali J, Abdul-Hakin R. The impact of microcredit program on women empowerment: Evidence from Bangladesh. *OIDA International Journal of Sustainable Development*. 2012;3(9):11-20.
18. Pitt Mark M, Khandaker SR. Household and intra-household impact of the Grameen Bank and similar targeted Credit Programs in Bangladesh. World Bank

- Discussion Papers No-320, World Bank: Washington D.C.; 1996.
19. WB. Expanding Women's Access to Financial Services. Accessed 21 March 2015. Available: <http://www.worldbank.org/en/results/2013/04/01/banking-on-women-extending-womens-access-to-financial-services>
20. ILO. Women in informal sector and their access to microfinance. Accessed 21 March 2015. Available: <http://www.gdrc.org/icm/wind/uis-wind.html>
21. Fletschner D. Rural women access to credit: Market imperfections and intra household dynamics. World Development. 2008;37(3):618-631.
22. Arenius P, Minniti M. Perceptual variables and nascent entrepreneurship. Small Business Economics, 2005;24(3):233-247.
23. Lycette M, White K. Improving women's access to credit in Latin America and the Caribbean: Polity and project recommendations. Editors, M Berger, M Buvinic. Women's Ventures: Assistance to the informal sector in Latin America, Kumarian Press, Connecticut: West Hartford; 1989.
24. Pitt MS, Khandker O, Chowdhury, Millimet D. Credit programs for the poor and the health status of children in rural Bangladesh. International Economic Review. 2003;44(1):87-118.
25. Ospina RI. Perspectiva de Genero en la Mision Rural: Para Dotar de Poder a las Mujeres, Mision Rural Proyecto Proequidad GTZ/DNP, Santa Fe de Bogotá, Colombia; 1998.
26. Thomas D. Incomes, Expenditures, and Health Outcomes: Evidence on Intrahousehold Resource Allocation. Editors, L. Haddad, J. Hoddinott, and H. Alderman. Intra-household Resource Allocation in Developing Countries: Models, Methods, and Policy, Maryland: The Johns Hopkins University Press, Baltimore; 1997.
27. Jinan T, Bashar A, Jahan N, Khanam TS. Impact of rural development scheme of Islami Bank Bangladesh Limited on beneficiaries in Mymensingh Sadar Area. Progressive Agriculture J. 2008;19(2): 205-2015.
28. Uddin MM. Credit for the poor: The experience of Rural Development Scheme of Islami Bank Bangladesh Ltd. The Journal of Nepalese Business Studies. 2008;5(1):62-75.
29. Rahman MM, Ahmed F. Impact of microfinance of IBBL on the rural poor's livelihood in Bangladesh: An empirical study. International Journal of Islamic and Middle Eastern Finance and Management. 2010;3(2):168-190.
30. Rahman MM. Islamic microfinance program and its impact on rural poverty alleviation. The International Journal of Banking and Finance. 2010;7(1):119-138
31. UNDP. Scaling up Islamic Microfinance in Bangladesh through the private sector: experience of Islami Bank Bangladesh Limited (IBBL); 2012. Accessed 25 November 2014. Available: www.undp.org/.../Bangladesh_D_10_web.pdf
32. Halimuzzaman M, Khaier MA, Hoque MM. An analysis of progress of rural development scheme (RDS) by IBBL: A study on Kushtia Branch. Banglavisian Journal. 2014;13(1):169-179.
33. Hutcheson GD. Ordinary Least-Squares Regression. Editors, L Moutinho, GD Hutcheson. The SAGE Dictionary of Quantitative Management Research. 2011; 224-228.
34. Rahman MM, Jafarullah M, Islam AT. Rural development scheme of Islami Bank Bangladesh Limited (IBBL): assessment and challenges. IIUM Journal of Economic Management. 2008;16(2):139-163.
35. Jinan T. Impact of micro-investment program under Rural Development Scheme of Islami Bank Bangladesh Limited for poverty alleviation in Mymensingh district. Thoughts of Economics. 2008;19(4):73-93.

APPENDIX-1

Scaling techniques of dependent and independent variables

Variable	Scaling techniques
Age	Year
Family size	Score of 1 for each members
Total number of earning members	Score of 1 for each earners
Education	Score of 1 for each schooling year
Total amount of loan received	Score of 1 for each Thousand taka
Duration of enjoying service	Score of 1 for each year of farming
Family farm size	Score of 1 for each hectares
Yearly income from agricultural sources	Score of 1 for each thousand Taka
Yearly income from non-agricultural sources	Score of 1 for each thousand Taka
Yearly expenditure	Score of 1 for each thousand Taka
Ownership of tube-well	Score of 1 for ownership of each Tube-well
Ownership of sanitary latrine	Score of 1 for ownership of each sanitary latrine
Social capital	Five pint Likert scale (Very high=5, High=4, Moderate=3, Low=2, Very low= 1)

© 2015 Jahan and Rashid; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<http://www.sciencedomain.org/review-history.php?iid=1059&id=25&aid=8873>