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**The Contribution of Islamic & Conventional Microfinance
on Household Income:
Evidence From Islami Bank and Grameen Bank
Microfinance Schemes in Bangladesh**

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ABSTRACT

This paper investigates the impact of microcredit on the household income of the borrowers and compares the contributions between Grameen Bank and Islami Bank microfinance schemes on it in Bangladesh. Towards the achievement of its objectives this study uses descriptive statistical and econometric techniques. The multiple ordinary least square regression techniques were employed to measure demographic and socio-economic factors that affect household total income. We found that there are strong and significant positive influences of demographic and socio-economic factors towards the increase of household total income of the both of two MFIs respondents based on the multiple regression techniques. Moreover, the overall findings indicate that Islami Bank microcredit respondents have done better record in using credit for income generating activities for reducing poverty compared to conventional microcredit. The study also recommended for successfully and effectively operation of microfinance programmes through increase of proper income generating activities, sufficient amount of access of credit, increase period of installment repayment, providing necessary skills training and re-emphasise on the zakat based Islamic mode of financing as well as Qard-al-Hasan on the basis of spiritual values as an alternative microcredit model for poverty alleviation in Bangladesh.

Keywords: Microcredit, Household Income, Grameen Bank, Islami Bank & Bangladesh

1.0 INTRODUCTION

Microfinance came with revolutionary approach for the poor those were ignored by formal financial institutions because of not having assets for collateral, enough financial records, and credit history for the accessibility to the credit to increase their productivity, for reducing vulnerability, and to alleviate poverty through self-income generating activities (Amin, Rai, and Topa 2003; Aslanbeigui, Oakes, and Uddin 2010; Basher 2010; Chowdhury, Ghosh, and Wright 2005).

Since the discovered by Dr. Muhammad Yunus in 1970s, the Microcredit revolution is still insufficient in many aspects to reduce the overall poverty level in the mother of microfinance, Bangladesh (Amin, Rai, and Topa 2003). The issues are identified that the interest rate charged by Micro-finance Institutions (MFIs'), which has a range of 15% to 20% from institutional and 33% to 120% in non-institutional cases, as one of the major impediments behind the effective financing solution for the poor Bangladesh (Kabeer 2001; Amin, Rai, and Topa 2003). On the other hand, few studies agreed that microcredit generated a positive change in the income of the poor borrowers but this changed dose not influence in their economic and social status(Amin, Rai, and Topa 2003; Ahmad Q. K. 2007). In such situation, number of marginal poor people is increasing every year, from 78.2 million poor people in 1970 to 80.46 million people in 2009 (Imai and Azam 2010; Islam 2009).

Apart from a missing holistic view in income generating, the MFIs' have not ruminated on the spiritual, moral and ethical dimensions of human-socio-economic development, which is precious in sustainable human development (Ahmed 2006; Alam 2009). In the era of high-growth Islamic banking, the best-fit alternative to conventional Microcredit is Islamic Microcredit, which promises the same benefits based on Shariah. As Islam provides the complete code of life, the religion covers poverty reduction as one of the premier agendas. Islam considers that poverty induces other indecent acts; therefore, poverty should be treated with much care. Among more than three thousand MFIs' at present working in Bangladesh, Rural Development Scheme (*hereafter referred to as RDS*) is the largest Islamic Microcredit program (Ahmed 2006; Alam 2009; Habib et al. 2004; M. Mizanur Rahmana, Jafrullahb, and Islamc 2008; Parveen 2009; Rahman and Ahmad 2010; Uddin 2008)

In responses of above issues, number of empirical studies have been done on impact analysis of conventional MFIs especially the role of Grameen Bank on household income of the borrowers but very few works have been done on the impact of Islamic Shariah based MFIs in the same issues in Bangladesh. Therefore, the main purpose of study is to assess the contribution of the Rural Development Scheme (RDS) of Islami Bank Bangladesh Limited (largest Islamic Microcredit programme in Bangladesh) and Grameen Bank (Pioneer of MFIs in Bangladesh) on the household income of the borrowers as well as will compares the contributions between Grameen Bank and Islami Bank microfinance schemes on it in Bangladesh.

2.0 REVIEW OF LITERATURE

2.1 Grameen Bank Microcredit Impact on Household Income

There are good numbers of impact studies have been done to determine the real situation as to whether there is positive or negative impact on the household income of the borrowers. Most of these studies used before and after situation of borrower's income and consumption (Chowdhury 2001; Chowdhury 2009; Dowla 2006; Dulal 2007; Fernandez 2010; Kabir Hassan and Tufte 2001; Khandker 2005; Osmani 1998). Hossain has conducted an early study in 1984 where he also used impact assessment method of "before-after" situation of borrower's income and consumption. He concluded that both per capita income and household income were positively increased with the amount of credit obtained from Grameen Bank. On the other hand, he did another empirical research in 1988 on the same issues and he found, on the basis of a survey of 1986 measuring borrowers' perception, that 91 percent of Grameen Bank's members improved their economic conditions i.e., increased income as well as consumption after joining Grameen Bank (Hossain 1988).

(Hulme and Mosley 1996) noted that once the loans are associated with an increase in assets and borrowers are encouraged to invest in low risk income generating activities as well as the very poor is encouraged to save; the vulnerability of the very poor is reduced and their poverty situation improves. However, Todd Helen has done a depth study in the grassroots of Grameen Bank's two groups in different villages were compared with a controlled group of women with Grameen members in the same villages. The Grameen women had been taking microcredit loans for a period of up to 10 years using a per capita income that would support minimum daily intake of 1800 calories to establish a poverty line; Todd ranked her 40 Grameen Bank's women and 22 controlled women. Only 15.0% of the Grameen group was classified as 'Extremely Poor' compared to 54.5% of the controlled group. Comparatively, 57.5% of the Grameen women and only 18.2% of the controlled group were ranked as 'Not Poor' and the remaining women were classified as 'Moderately Poor' (Todd Helen, 1996). Other studies also support his findings (Amin, Becker, and Bayes 1998; Amin, Rai, and Topa 2003; Arun 2005; Basher 2010; Bhuiya and Chowdhury 2002; Blair 2005; Chowdhury 2001; Cons and Paprocki 2010; David and Jonathan 2009)

Table.2.9: Impact of Microcredit in compare between Grameen member and Control Group.

| Name of Group | Extremely Poor | Not Poor | Moderately Poor |
|---------------|----------------|----------|-----------------|
| Grameen Group | 15% | 57.5% | 27.5% |
| Control Group | 54.5% | 18.2% | 27.3% |

Source: (Todd, Helen. 1996)

The Grameen Bank villages, for instance, 76 % of participants who have taken no loans or taken loan for one time were below the poverty line, compared with only 57 % of those who have taken five or more loans and approximately five years duration for a poor member to work up to above the poverty line, but eight years have elapsed before the member is able to function independently from the microcredit institution (Khandker and Chowdbury 1996). Furthermore, Microcredit programmes help to increase the following matters of borrowers at the participant level i.e., Per capita expenditure, Children's schooling, and Children's nutritional status and at the village level i.e., Production, Income and Wages (Khandker 1998). Other studies also agreed with his findings (Amin, Rai, and Topa 2003; Aslanbeigui, Oakes, and Uddin 2010; Bhuiya and Chowdhury 2002; Chakravarty and Shahriar 2010; Chowdhury 2007; Dulal 2007; Evans et al. 1999; Fernandez 2010; Hamid, Roberts, and Mosley 2010; Hoque 2004; Islam 2010; Jain and Mansuri 2003; Karlan and Morduch 2010; Littlefield, Morduch, and Hashemi 2003; Morduch 1999)

In the same way, Khandker addressed similar exercise by estimating the effects of micro finance on consumption, poverty and non land assets for microcredit participants, non-participants, and an average villager in 2003. He has found that microcredit programme has spill-over effects in local economies, thereby increasing local village welfare. More specifically, he finds that micro-finance helps reduce extreme poverty more than moderate poverty at the village level. Yet, the aggregate poverty reduction effects are not quite substantial to have a large dent on national level aggregate poverty. This concern brings to the fore the effectiveness of micro finance as an instrument to solve the problem of poverty in Bangladesh (Khandker, 2003).

At the same time, the MFIs branches tend to be located in poor pockets of relatively well developed areas than in remoter, less developed regions. Client density of established branches does not exhibit such a feature and actually tends to be better in less advantageous locations (Zeller, 1999(Khandker 1998; Khawari 2004; McIntosh and Wydick 2005; Morduch 1999; Mosley and Hulme 1998; Parker and Nagarajan 2000)). Furthermore, Microcredit deprive the poor from the Government aid and public charity because the general concerned have been raised that microcredit enough to push the poor to move out poverty (Neff 1996). Further more, the primary source of the conflict lies in the very different understandings of intra-household power relations which these studies draw on. It supports this argument through a comparative analysis with the findings of a participatory evaluation of a rather different credit programme in Bangladesh in which the impact of loans was evaluated by women loanee's themselves (Kabeer 2001; McIntosh and Wydick 2005; Morduch 1999; Mosley and Hulme 1998).

2.2 Islami Bank Microcredit Impact on Household Income:

There is lack of sufficient empirical studies has done in the context of Islamic microfinance, because most of existing studies simply assessed the impact of interest based microcredit programmes and did not consider Islamic Shariya (Islami rules and regulations) compliance for investment (M. Mizanur Rahmana, Jafrullahb, and Islamic

2008). In such situation, this study has been searched to find related literature as many as possible from the existing study on Islamic microfinance especially on Rural Development Scheme in Bangladesh. The main part of literature has been described below. Islami Bank loan was productively used irrespective of loan holder categories. Loan repayment performance of the beneficiaries was observed to be satisfactory. Self-consciousness and hope of receiving future loan were observed to be the major contributing factors for good loan repayment behaviour of the beneficiaries. Small borrowers were good re-payers followed by the medium and large borrowers. (Habib et al. 2003; Akhter, Akhtar, and Jaffri 2009; Alam 2003; Alam 2009; Basher 2010; Harran 2010; Karim 2003)

Furthermore, the RDS in poverty alleviation shall pave the way for diversification of RDS activities and development plan(Ahmed 2006). In the other way, most of the clients of Islami bank credit borrowers (Habib et al. 2004; Hossain 2005; Huq 2005; Karim 2003; Karim, M.Tarazi, and Reille 2008)have increased household income and expenditure had increased significantly and clients had a positive opinion towards the micro investment programme me as it improved their standards of living but the reality is that not all the clients have invested their borrowed money in income generating activities. Instead, some of them have utilised their investment in house repairing, children's marriage ceremony and furniture purchase etc.(M. Mizanur Rahmana, Jafrullahb, and Islamc 2008; Alam 2009; Habib et al. 2004; IBBL 2006, 2007, 2009; IDLO 2009; Rahim and Rahman 2007; Rahman 2010)

In the same way, Islami Bank generally a success for providing credit to the poor borrowers. Household income and expenditure had increased significantly and clients had a positive opinion towards the micro investment programme me as it improved their standards of living. In such situation RDS activities are extended towards hardcore poor, especially for widows and divorcees. Monitoring and supervision should be strengthened, while more ethical and moral motivational programmes have to be undertaken for both field supervisors and clients to reduce Shariya violation. The programme me can be replicated in other rural areas of Bangladesh in order to accelerate economic activities of the poor (M. Mizanur Rahmana, Jafrullahb, and Islamc 2008; Huq 2005; IDLO 2009; Karim, M.Tarazi, and Reille 2008; Khan and Phillips 2010; Mannan 2006; Rahim and Rahman 2007; Rahman, Jafrullahb, and Islam 2008).

Same way, Akhter et.al has been recognized Islamic micro-finance as an important component in poverty alleviation strategies. While conventional microfinance products have been successful in Muslim majority countries, these products do not fulfil the needs of all Muslim clients (Alam 2003; Habib et al. 2004; Hossain 2005; M. Mizanur Rahmana, Jafrullahb, and Islamc 2008).

3.0 METHODOLOGY

The present study has used descriptive statistical and econometric techniques through the field survey of existing microcredit borrowers. The Purposive stratified random sample methodology were used to select samples of respondents. There are 450 sample have been collected from the survey field where as 255 samples have collected from the Grameen

Bank microcredit scheme and 195 samples from Islami Bank microcredit scheme from the area of Sylhet and Chittagong Division in Bangladesh.. The sample size has been also fixed on the basis of total number of MFIs members in the respected area.

Table No 3.1: Distribution of sample collection and field area by MFIs

| MFIs | Study field area | | |
|--------------------|------------------|---------------------|-------|
| | Sylhet Division | Chittagong Division | Total |
| Grameen Bank(GB)% | 147 | 108 | 255 |
| | 57.60 | 42.40 | 100 |
| Islami Bank (RDS)% | 71 | 124 | 195 |
| | 36.40 | 63.60 | 100 |
| Total | 218 | 232 | 450 |
| % | 48.40 | 51.60 | 100 |

Source: Primary Data from Survey at 2009

The descriptive model have been used through means, ranges, and frequency, percentages, ratios, etc. for the measurement of the socioeconomic productivity of microcredit in terms of total household income, average per capita income, and percentages changed of household income by comparing before and after situations of the both of MFIs. Furthermore, the multiple ordinary least square regression techniques were employed by using one side log to measure demographic and socio-economic factors that affect household total income. Applications of regression analysis exist in almost every field such as economics, psychology, education and other fields (Efroymson 1960). Multiple linear regression attempts to model the relationship between two or more explanatory variables and a response variable by fitting a linear equation to observed data(Cohen 2003; Efroymson 1960; Khalily 2004). Every value of the independent variable x is associated with a value of the dependent variable y . The population regression line for p explanatory variables x_1, x_2, \dots, x_p is defined as below.

$$\mu_y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_p x_p.$$

Formally, the model for multiple linear regressions, given n observations, is

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \epsilon_i \text{ for } i = 1, 2, \dots, n.$$

In the least-squares model, the best-fitting line for the observed data is calculated by minimizing the sum of the squares of the vertical deviations from each data point to the line (if a point lies on the fitted line exactly, then its vertical deviation is 0). Because the deviations are first squared, then summed, there are no cancellations between positive and negative values. Therefore, the following model has been used for determining the factors of

the both of the respondent total monthly household income of Grameen Bank (GB) and Islami Bank (RDS) in this paper respectively.

$$\text{Log } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + u$$

Where, Log Y= Monthly Income of Households (In BDT)

X_1 = Borrower Age (on January 2009)

X_2 = Borrowers no education (1= No education and 0= Otherwise)

X_3 = Borrowers within primary education (1= up to primary education and 0= Otherwise)

X_4 = Respondent Occupation with Agriculture (1= With Agriculture and 0= Otherwise)

X_5 = Respondent Occupation with Business (1= With Business and 0= Otherwise)

X_6 = Total Household Size

X_7 = Total Household Earning Members

X_8 = Involvement with MFIs

X_9 = No. of loan

X_{10} = Total amount of Loan Received

u = Error term

β_0 = Constant (intercept term) $\beta_{1,2,\dots,10}$ are the coefficients of explanatory variables

As the income is the prime indicator of poverty measurement and it has been affected positively or negatively by the following socio-economic and demographic variables including age, education, occupation, household's family size, earning family size, number of years involvement with credit, number of loan taken and income from the source of credit used as well. To justify the fit of multiple semi-log linear regression model, this study has done the entire required test to know how the used of microcredit loan and other socio-economic as well as relevant demographic variables influences on the total households monthly income of the both two MFIs.

4.0 FINDINGS AND DISCUSSION

4.1 Respondent Occupations

The result of study indicates that more than half of respondent occupation is farmer and they don't have enough opportunity to invest credit money rather 24.8% of them are using their credit fully for non income generating activities on the other hand only 28.9% of respondent able to use their loan fully in income generating activities.

Table No 4.1: Distribution between respondent occupations and MFIs

| MFIs | Household Head Occupation | | | | Total |
|-------|---------------------------|----------|--------------|-------------|-------|
| | Agriculture | Business | Daily Labour | Private Job | |
| GB | 89 | 61 | 92 | 13 | 255 |
| % | 34.9 | 23.9 | 36.1 | 5.1 | 100 |
| RDS | 85 | 69 | 34 | 7 | 195 |
| % | 43.6 | 35.4 | 17.4 | 3.6 | 100 |
| Total | 208 | 130 | 92 | 20 | 450 |
| % | 46.2 | 28.9 | 20.4 | 4.4 | 100 |

Source: Primary Data from Survey at 2009

The rest of them use their loan partially for income generating activities and consumption or non income generating activities. Thus, above situation, specific occupation is not significant influencing factors for the both of MFIs respondent. In compare between Grameen Bank and Islami Bank credit scheme 34.9% of GB members are and about 6.7% of RDS members only involving with agricultural occupation, in the same way 20.8% GB members while 79% RDS members are within the own business operating. Furthermore 35.3% GB and only 11.8% RDS members are engaged within the daily labour situation. It is also found that 9% of GB members and 2.6% RDS members are involving with somehow private job and rest of occupation they have respectively.

4.2 Households Earning Members

Furthermore, total number of earning members is also much more important factors for influence of increasing income generation of households. These findings revealed that if the more earning members of the family, the amount of the respondent family income also higher while other relevant factors remain constant.

Table No 4.2: Distribution of households earning members and MFIs

| MFIs | Frequency | Households Earning Family members | | | | Variance |
|------|-----------|-----------------------------------|---------|------|----------------|----------|
| | | Minimum | Maximum | Mean | Std. Deviation | |
| GB | 255 | 1.00 | 5.00 | 2.14 | 0.70 | 0.48 |
| RDS | 195 | 1.00 | 5.00 | 2.01 | 0.89 | 0.80 |

Source: Primary Data from Survey at 2009

Moreover, the study shows the average no. of earning members two where as Islami Bank respondent family holds only 2.01 persons and Grameen Bank respondent have 2.14 persons respectively. On the other hand Std. Deviation of household size of MFIs was Grameen Bank 0.70 and Islami bank household members 0.89 respectively where co-variance is 5.15 and 3.03 respectively.

4.3 Household Monthly Income

Income is the most important indicator of poverty measurement that affects household's level of economic condition and also indicates the level of poverty status of household. The available sources of household's income denoted that they have enough monetary support to continue their life by meeting up basic needs smoothly or vice versa. Household's total income has been fixed in this study based on respondent memory records. The survey data of this study shows that average household monthly income of responded has increased of the both Grameen Bank and Islami Bank over the last five years.

Table No 4.3: Monthly Households Income at present and before joining with credit by MFIs (Amount in USD)

| | Households Income at present and before joining with MFIs | | | |
|---------------------|---|-----------|---------------|----------|
| | Present Income | | Before Income | |
| | RDS | GB | RDS | GB |
| Average Income | 217.8857 | 190.5126 | 123.0790 | 96.5224 |
| Minimum | 64.06 | 56.52 | 36.23 | 18.12 |
| Maximum | 1158.70 | 1281.16 | 550.72 | 489.13 |
| Std. Deviation | 139.11390 | 139.91113 | 69.52369 | 52.87857 |
| Variance | 19352.677 | 19575.124 | 4833.543 | 2796.143 |
| Changed (Increased) | 56% | 51% | | |

Source: Primary Data from Survey at 2009

The respondent household's income table indicates that the present average monthly income of Islami Bank is USD 217.87 while Grameen Bank respondent family income is USD 190.51. On the other hand before five year ago Islami Bank and Grameen Bank respondent average family income was USD 123.08 and USD 96.52 respectively. Furthermore, Islami Bank respondent households able to increase their family income 56% and Grameen bank respondent also increased 51% more than the five years back respectively. In the same way, Std. Deviation of household present average income of Islami bank USD139.11 and Grameen Bank household members USD139.91 respectively where co-variance is 19352.68 and 19575.12 respectively.

4.4 Range of Household Monthly Income

In particularly, study observed that they have done well to increase their level of income over the last five years such as: 82.9% of family’s income range was in categories (d) but after five years only 55.6% of household income in the same stage.

Table No 4.4: Monthly Households Income ranges at present and before joining with credit by MFIs (Amount in USD)

| Income Range | Range of Present Income | | | | Range of Before Income | | | | Total | |
|--------------|-------------------------|------|--------|------|------------------------|------|--------|------|-----------|----------|
| | GB | | RDS | | GB | | RDS | | Present % | Before % |
| | Number | % | Number | % | Number | % | Number | % | | |
| 50 and Less | 4 | 1.6 | 0 | .0 | 23 | 9.0 | 22 | 11.3 | .9 | 10.0 |
| 51-150 | 159 | 62.4 | 91 | 46.7 | 221 | 86.7 | 152 | 77.9 | 55.6 | 82.9 |
| 151-250 | 69 | 27.1 | 66 | 33.8 | 8 | 3.1 | 16 | 8.2 | 30.0 | 5.3 |
| 251-350 | 11 | 4.3 | 25 | 12.8 | 1 | .4 | 4 | 2.1 | 8.0 | 1.1 |
| 351and above | 12 | 4.7 | 13 | 6.7 | 2 | .8 | 1 | .5 | 5.6 | .7 |

Source: Primary Data from Survey at 2009

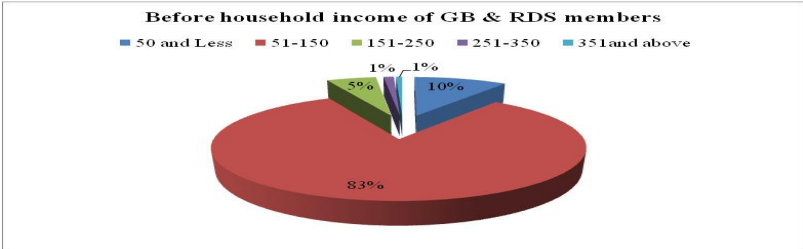


Figure 4.1: The figure shows distribution of the range of household income before five years back

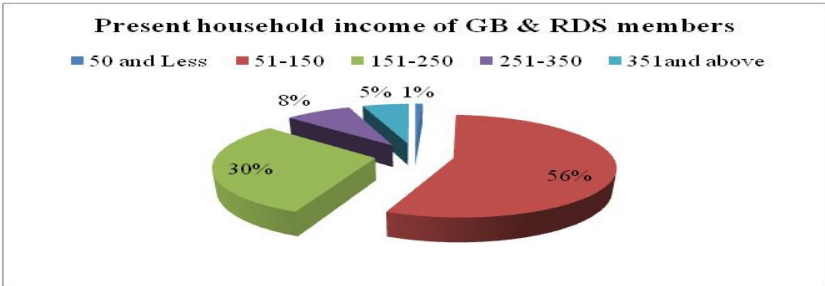


Figure 4.2: The figure shows distribution of the range of present household income

On the other hand 5.3% household income was in (c) categories but they improve in 30% after that period. Similarly 1.1% was in (d) categories and 0.7% was in (e) but at present 8.0% and 5.6% respectively. In overall study output denoted that Islami Bank respondent households did well to increase their range of family income rather than Grameen Bank.

4.5 Multiple Regression Result of Grameen Bank:

The study found that overall estimated result of multiple regression analysis is satisfactory level on the basis of cross-section data sample. The study result shows that the adjusted R^2 is 0.597 and observed R^2 value is 0.612. That means there are good relationship with dependent variables and independent variables where all independent variable can able explain about 60% to the present household total monthly income. On the other hand, the analysis of variance (ANOVA) table also reflected about the goodness of model whether the model is significant or not, the F- test shows that the estimated regression is quite meaningful in the sense that the dependent variable is related to each specific explanatory variable. The linear relation of the model is highly significant where the p value for the F is less than 0.0001% level. Furthermore the estimated coefficient is consistent with the theoretical or prior expectation signs as well. It has also denoted from the model that most of variables significantly related at the 0.01 and 0.05 levels, which is significantly different from zero. The results of this multiple regression analysis show the best in the sense of involving no multicollinearity that is the independent variables are not too highly related to each other. Moreover, this study employed the technique of the Collinearity diagnostics to eliminate the problem of the multicollinearity.

Overall result of this multiple regression analysis is strongly supported from the value of adjusted R^2 , which is significant at 0.01 level (F- test confirms the significance of R^2) measuring the goodness of fit of the model. The adjusted R^2 value of the credit respondent family income increased could be explained by the all independent variables in the model. Thus, the research summarize that there are significant relationships of income of Grameen Bank Microcredit borrower's household and borrowing credit including other socio-economic and demographic characters.

Table 4.5: The summarized multiple regression analysis result showing the factors determining both of Grameen Bank and Islami Bank respondent household income.

| Variables | Grameen Bank | | Islami Bank | |
|--|---------------------------------------|------------|---------------------------------------|------------|
| | Estimated Coefficients (β) | Std. Error | Estimated Coefficients (β) | Std. Error |
| (Constant) | 8.649 (67.887) *** | 0.127 | 8.660 (60.794) *** | .142 |
| X ₁ =Borrower Age (on January 2009) | -0.007 (-2.897) *** | 0.003 | -0.011 (-4.869) *** | .002 |
| X ₂ = Borrowers without education 1= No Education 0= Otherwise | 0.002 (.007) NS | 0.342 | -0.011 (-0.177) NS | .062 |
| X ₃ =Borrowers within primary education 1= up to primary education 0= Otherwise | 0.071 (1.359) NS | 0.052 | 0.206 (4.148) *** | .050 |
| X ₄ = Respondent Occupation with Agriculture 1= Agriculture 0= Otherwise | -0.404 (-1.181) NS | 0.342 | 0.108 (1.604) NS | .067 |
| X ₅ = Respondent Occupation with Business 1= Business 0= Otherwise | 0.090 (1.687) ** | 0.054 | 0.191 (3.369) *** | .057 |
| X ₆ = Total Household Size | 0.024 (2.082) ** | 0.011 | 0.016 (1.255) NS | .013 |
| X ₇ = Total Household Earning Members | 0.104 (3.105) *** | 0.034 | 0.197 (8.460) *** | .023 |
| X ₈ = Involvement with MFIs | -0.006 (-1.042) NS | 0.006 | 0.006 (0.635) NS | .010 |
| X ₉ = No. Of loan | 0.041 (2.679) *** | 0.015 | 0.034 (3.577) *** | .010 |
| X ₁₀ =Total Amount of Loan Received | 0.0000055 (9.535) *** | 0.000 | 1.807E-6 (3.501) *** | .000 |
| Number of Observations | 255 | | 195 | |
| R Square | 0.612 | | 0.667 | |
| Adjusted R Square | 0.597 | | 0.649 | |
| Standard Error of the Estimate | 0.33351 | | 0.29088 | |
| Mean of Dependent Variable | 9.0633 | | 9.0633 | |
| F-Value | 38.552 | | 36.892 | |
| Durbin-Watson | 1.818 | | 1.998 | |

Note: *** Indicate significant at 0.01 Level, ** Indicate significant at 0.05 Level, NS Indicate not significant at .10 Level respectively

4.6 Multiple Regression Result of Islami Bank (RDS)

The study found that overall estimated result of multiple regression analysis is also quite satisfactory level where the adjusted R^2 is 0.649 and observed R^2 value is 0.667 respectively. The value of adjusted R^2 revealed that there are good relationship with dependent variables and independent variables where all independent variable can able explain about 65% to the present household total monthly income. On the other hand, The ANOVA table also reflected about goodness of model and F- test estimated that the regression is quite meaningful in the sense that the dependent variable is related to each specific explanatory variable. The linear relation of the model is highly significant where the p value for the F is less than 0.0001% level. Furthermore the estimated coefficient also denoted from the model that most of variables significantly related at the 0.01 and 0.05 levels, which is significantly different than zero. The result of this model also confirmed that there is no more multicollinearity problem where the independent variables are not too highly related to each other. Moreover, this study employed the technique of the Collinearity diagnostics to eliminate the problem of the multicollinearity.

In the same way, the multiple regression result also has strongly supported from the value of adjusted R^2 , which is significant at 0.01 level (F- test confirms the significance of R^2) measuring the goodness of fit of the model. The adjusted R^2 value of the credit respondent family income increased could be explained by the all independent variables in the model. Thus, the research summarize that there are significant relationships of income of Islami Bank Microcredit borrower's household and borrowing credit including other socio-economic and demographic characters.

4.7 Compare result of Grameen Bank and Islami Bank microcredit schemes:

The compare result of regression analysis has done through T-values of the regression coefficients and respondents household monthly income of Islami Bank members. The table 4.5 indicate that most of the explanatory variables are significantly affect with the both of two MFIs respondent's total family monthly income based on adjusted R^2 and F- value.

4.7.1 Age of respondent

The variable of the age of respondent is considered in this model as an important determinant to find out the way of increasing the house hold's income of the both of Islami Bank and Grameen Bank Microcredit borrowers. It has shown the mixed result in the both of Grameen Bank and Islami Bank respondent's while it has significant level ($P < 0.01$) but coefficient is found in negative sign. Therefore, negative coefficient at the 1% level of significance indicates that age is not an important matter of poor borrowers for income generating activities by using of credit properly but also to use the borrowing money for income generating activities it is required the education, skill to operate business, occupation, access of sufficient credit, family earning members and available opportunity to run a income generating activities. However, result of this negative coefficient sign can be supported that most of respondent aged is within 35 are mostly 56% participating in the microcredit programme s in the both of Grameen Bank and Islami Bank Rural (RDS). In the

same way the study found that the most common age range are 25-35 years old respondents 46% together both of MFIs. The research also found that 31.30% of the respondent's age group is between 36 to 45 years, at the same-time 10% of respondents' age group is between 25 and less years age group, 9.8% is 46-55 and 2.9% is 56 or more age groups respectively.

4.7.2 Respondents level of education:

The level of education is also most important factors which can be influence in household income. In this model, Islami Bank and Grameen Bank Microcredit respondent without education shows mixed impact on the household income. It has influenced positively or negatively in the respondent family income but do not have any significant coefficient on it. The Grameen Bank respondent has shown a positive influence that means educated borrower could be more efficient to use borrowing credit properly. On the other hand, Islami Bank respondent shows negative influence on the household income but it is not in the significant level.

Moreover, the respondent level of education up to primary level shows the positive coefficient on the household income of respondent. While Grameen Bank respondent has influenced by education level but statistically it is not in the significant influence level on household total income. In the same way, Islami Bank respondent shows significantly positive influences at the $1 < 0$ level. These findings revealed that respondent who has received high level of education will be likely to make more income in their family than respondent who have not crossed primary education. It can be indicate that higher the education the higher is the family income of the respondent.

4.7.3 Respondent occupation in agriculture:

The respondent occupation with agriculture has also shown mixed relation i.e. positive and negative affected to the respondent monthly income of the both of Grameen Bank and Islami Bank. In particular, Islami Bank respondent occupation has positive coefficient but not significantly influence in the total household income. On the other hand, Grameen Bank respondent has negative coefficient and as well as not statistically significant influence on household total income. The result of study indicates that more than half of respondent occupation is farmer and they don't have enough opportunity to invest credit money rather 24.8% of them are using their credit fully for non income generating activities on the other hand only 28.9% of respondent able to use their loan fully in income generating activities. The rest of them use their loan partially for income generating activities and consumption or non income generating activities. Thus, above situation, specific occupation is not significant influencing factors for the both of MFIs respondent.

4.7.4 Respondent occupation in business sectors:

The variable, occupation of respondent with business has also shown positive coefficient in the significant level to the respondent monthly income. In particular, Islami Bank respondent occupation has positive coefficient and significantly influence in the total household income at $1 < 0$ level. On the other hand, Grameen Bank respondent has also positive coefficient as well as statistically significant influence at the 5% level on household

total income. The result of study indicates that respondent occupation with business is most potential sectors where the borrowers can able to invest the amount of borrowing credit for income generating activities for increasing their household income .Thus, the study concluded that the occupation with business is a significant influencing factor for the both of MFIs respondent for increasing their household income.

4.7.5 Total number of household members:

The variable, total number of household members shows statistically significant positive effect on the total household income of both of two MFIs respondents. In particular, Grameen Bank & Islami Bank Microcredit borrower's household size has been statistically significant influence at the level of .01% to the total household income. Moreover, the positive significant coefficients of indicate that more family members of household having more opportunity to engage in the income generating activities and that's why number of family members have positive significant influence to increase household income. As the study found the average no. of GB household members are 5.97 persons while RDS household members are 5.19 persons.

4.7.6 Total number of earning members:

Furthermore, total number of earning members is also much more important factors for influence of increasing income generation of households. The variable of the respondent earning family members as a determinant has shown positive influence to the total household income of the both of Islami Bank and Grameen Bank Microcredit borrowers' family earning members. Especially Grameen Bank respondent shows at the 5% significant level of influence where Islami Bank respondent shows positive coefficient but not in the significant level. These findings revealed that significantly positive coefficient indicates that if the more earning members of the family, the amount of the respondent family income also higher while other relevant factors remain constant. Moreover, the study shows the average no. of earning members two where as Islami Bank respondent family holds only 2.01 persons and Grameen Bank respondent have 2.14 persons respectively.

4.7.7 Respondent involvement with credit

The variable, respondent involvement with credit indicate mixed output i.e. positive and negative coefficient in the total household income of the both of MFIs. Particularly Grameen Bank shows negative influence but not in the significant level. On the other hand, Islami Bank respondent shows positive coefficient but also not in the significant level. That means number years involve with credit is not an important factors for increasing volume of income but the amount of loan taken from the MFIs. So it clear to us if the borrowers stay long time with MFIs but don't able to take more number of loan then they will not able to change their status of income.

4.7.8 Number of loan

Furthermore, the variables number of loan shows significantly positive coefficient at the 1% level of both of MFIs respondent's household income. The study output indicates

that the borrowers increased their family income those who are taking more number of loans from MFIs and used that amount of loan in the income generating activities.

4.7.9 Total amount of credit

In the same way, as the aim of this study is to know the contributions of microcredit on the poverty alleviation of their borrowers by using borrowing credit. Thus, it is most important factors to know how borrowing credit influence on the total household income. The variable of the borrowers used total amount of credit as a determinant has shown statistically positive significant relation on the total household income of the both of Islami Bank and Grameen Bank Microcredit borrowers. While, Grameen Bank and Islami Bank respondent influence at the level of 0.01% to the total household income. The statistically significant positive coefficient indicates that borrower's involvement with credit has been strongly influence on the income generating activities by using of credit money. The study also revealed that respondent having much credit and uses that credit to the income generating; they able increase their family income and move out them from the poverty if the other factors remain same.

5.0 CONCLUSION

As the purpose of the study is to assess the contribution of the microcredit on the household income of the respondent of Grameen Bank and Islami Bank in Bangladesh and compare the contribution of conventional and Islamic shariya based microcredit scheme on the same issues. The survey data of this study shows that the borrowing credit has contributed to increase of average household monthly income of respondents of the both of Grameen Bank and Islami Bank over the last five years. The respondent household's average monthly income of Islami Bank is USD 217.87 while Grameen Bank respondent family income is USD 190.51. On the other hand before five year ago Islami Bank and Grameen Bank respondent average family income was USD 123.08 and USD 96.52 respectively. Furthermore, Islami Bank respondent households able to increase their family income 56% and Grameen bank respondent also increased 51% more than the five years back respectively. The study also observed that Islami Bank respondent households did well to increase their range of family income rather than Grameen Bank.

The study also revealed that most of the borrowers are still involved with traditional agricultural activities as well as small business. The study found that Islamic Bank respondent family members are engaging more income generating activities rather than Grameen Bank respondent family. On the other hand, study also recommended that if the more earning members of the family, the amount of the respondent family income also higher while other relevant factors remain constant. Furthermore, the study also found that 62.2% of respondent are using their credit in the any types of income generating activities while Islami Bank credit respondent 68.7% are using their credit income generating way and Grameen Bank has 57.3% respectively. On the other hand only 42.70% of GB and 31.8 % of RDS members are using their borrowing money in consumption rather in economic activities as well.

The study found that there are strong and significant positive influences of demographic and socio-economic factors towards the increase of household total income of the both of two MFIs respondents based on the multiple regression techniques. Moreover, the overall findings indicate that Islami Bank microcredit respondents have done better record in using credit for income generating activities for reducing poverty compared to conventional microcredit. Thus, the findings of the study have revealed that estimated result of multiple regression analysis of Islami Bank and Grameen Bank Microcredit borrowers has a significant relationship between dependent variables and independent variables. In particular, Islami Bank microcredit has shown much better satisfactory level where adjusted R² is 0.649 that means all independent variables can able explain about 65% to the present household total monthly income. On the other hand, Grameen Bank Microcredit borrowers has shown only adjusted R² is 0.597 and here all independent variables can able explain only about 60 % to the present household total monthly income which is 5% less than Islami Bank Microcredit schemes. Finally, the study has been recommended for successfully and effectively operation of microfinance programmes through increase of proper income generating activities, sufficient amount of access of credit, increase period of installment repayment, providing necessary skills training and re-emphasise on the zakat based Islamic mode of financing as well as Qard-al-Hasan on the basis of spiritual values as an alternative microcredit model for poverty alleviation in Bangladesh.

6.0 REFERENCES

- Ahmad Q. K., Eds. 2007. *Socio-Economic and Indebtedness-Related Impact of Microcredit in Bangladesh*. In UPL Publications: . Dhaka.
- Ahmed, Mahmood. 2006. *Impact of Rural Development Scheme on Poverty Alleviation: A Case Study*. Dhaka, Bangladesh Research, Planning and Development Division Islami Bank Bangladesh Limited.
- Akhter, Waheed, Nadeem Akhtar, and Syed Khurram Ali Jaffri. 2009. *Islamic Micro-Finance And Poverty Alleviation: A Case of Pakistan*. Paper read at 2nd CBRC at Lahore, Pakistan.
- Alam, Mohammed N. 2003. *Micro Credit Through 'Bai-Muajjal' Mode of Islamic Banking Financing System*. In *First Annual Conference of SANABEL, Islamic Microfinance in the Arab World: Shaping the Industries Future*". Amman, Jordan,.
- Alam, Mohammed Nurul. 2009. *Interest-Free Microfinance to Micro Entrepreneurs in Rural Bangladesh*. In *First International Microfinance Conference on Microfinance*. ULB Brussels, June 2-4,.
- Amin, R, S Becker, and A Bayes. 1998. *NGO-promoted microcredit programs and women's empowerment in rural Bangladesh: quantitative and qualitative evidence*. *The Journal of Developing Areas* 32 (2):221-236.

- Amin, Sajeda, Ashok S. Rai, and Giorgio Topa. 2003. *Does microcredit reach the poor and vulnerable? Evidence from northern Bangladesh. Journal of Development Economics* 70 (1):59-82.
- Arun, Thankom. 2005. *Regulating for development: the case of microfinance. The Quarterly Review of Economics and Finance* 45 (2-3):346-357.
- Aslanbeigui, N, G Oakes, and N Uddin. 2010. *Assessing Microcredit in Bangladesh: A Critique of the Concept of Empowerment. Review of Political Economy* 22 (2):181-204.
- Basher, M. 2010. *Promotional role of microcredit: Evidence from the Grameen Bank of Bangladesh. Journal of International Development* 22 (4):521-529.
- Bhuiya, Abbas, and Mushtaque Chowdhury. 2002. *Beneficial effects of a woman-focused development programme on child survival: evidence from rural Bangladesh. Social Science & Medicine* 55 (9):1553-1560.
- Blair, Harry. 2005. *Civil society and propoor initiatives in rural Bangladesh: finding a workable strategy. World Development* 33 (6):921-936.
- Chakravarty, S, and AZ Shahriar. 2010. *Relationship Lending in Microcredit: Evidence from Bangladesh. Working Papers.*
- Chowdhury, A. 2009. *Micro Finance as a Poverty Reduction Tool. A Critical Assessment Center for Global Development Working Paper Global Development*
- Chowdhury, Alam. 2001. *"The Role of Micro-credit in Alleviation of Poverty: A study of the Grameen Bank in Bangladesh". Dhaka: Department of Finance and Banking, University of Dhaka, Bangladesh.*
- Chowdhury, M, D Ghosh, and RE Wright. 2005. *The impact of micro-credit on poverty: evidence from Bangladesh. Progress in Development studies* 5 (4):298.
- Chowdhury, M. Jahangir Alam. 2007. *Does the Participation in the Microcredit Programs Increase Consumption of Participating Households? The Case of the Grameen Bank in Bangladesh. Dhaka, Bangladesh: University of Dhaka, Center for Microfinance and Development, Working Papers.*
- Cohen, J. 2003. *Applied multiple regression/correlation analysis for the behavioral sciences: Lawrence Erlbaum.*
- Cons, J, and K Paprocki. 2010. *Contested Credit Landscapes: microcredit, self-help and self-determination in rural Bangladesh. Third World Quarterly* 31 (4):637-654.
- David, Roodman, and Morduch Jonathan. 2009. *The Impact of Microcredit on the Poor in Bangladesh: Revisiting the Evidence. Centre for Global Development ,Working Paper Number 174.*
- Dowla, Asif. 2006. *In credit we trust: Building social capital by Grameen Bank in Bangladesh. Journal of Socio-Economics* 35 (1):102-122.

- Dulal, Hari Bansha. 2007. *Role of Microcredit in Rural Poverty Alleviation: A Case Study of Grameen Bikas Bank in the Eastern Development Region, Nepal School of Public Policy, George Mason University, Fairfax, VA.*
- Efroymson, MA. 1960. *Multiple regression analysis. Mathematical methods for digital computers 1:191-203.*
- Evans, Timothy G., Alayne M. Adams, Rafi Mohammed, and Alison H. Norris. 1999. *Demystifying Nonparticipation in Microcredit: A Population-Based Analysis. World Development 27 (2):419-430.*
- Fernandez, A. 2010. *Microcredit and Women's Outward Mobility in Rural Bangladesh: A Study of the Grameen Bank.*
- Habib, M. A., M. Sayeedul Haque, M. R. Uddin Mian, and M.A. Bashar. 2003. *Micro Credit: An Experience Of Islami Bank Bangladesh Limited.*
- . 2004. *Micro Credit: An Experience of Islami Bank Bangladesh Limited. Department of Agricultural Finance Bangladesh Agricultural University, Mymensingh-2202, Bangladesh.*
- Hamid, SA, J Roberts, and P Mosley. 2010. *Can Micro Health Insurance Reduce Poverty? Evidence from Bangladesh.*
- Harran, Al. 2010. *Islamic Finance needs a new paradigm.*
- Hoque, S. 2004. *Micro-credit and the reduction of poverty in Bangladesh. Journal of Contemporary Asia 34 (1):21-32.*
- Hossain, Mohammad. 1988. *Credit for the Alleviation of Rural Poverty: The Grameen Bank in Bangladesh. Washington DC.*
- Hossain, Monowar. 2005. *Zakat Based Poverty Eradication In Bangladesh: The Millennium Development Goal Is Exceed Able. Dhaka, Bangladesh: Institute of Hazrat Mohammad (SAW).*
- Hulme, D, and P Mosley. 1996. *Finance against poverty: Routledge.*
- Huq, Begum Ismat Ara. 2005. *Poverty Alleviation through Islamic Micro Financing – A Case Study of Bangladesh. Department of Finance & Banking University of Chittagong, Bangladesh.*
- IBBL, Annual Report. 2006. *Performance of Rural Development Scheme. Dhaka, Bangladesh: Islami Bank Bangladesh Limited*
- . 2007. *Performance of Rural Development Scheme Dhaka, Bangladesh: Islami Bank Bangladesh Limited*
- . 2009. *Performance of Rural Development Scheme Dhaka, Bangladesh.: Islami Bank Bangladesh Limited*
- IDLO. 2009. *Islamic Microfinance Report. edited by A. O. LLP: International Development Law Organization.*
- Imai, KS, and MS Azam. 2010. *Does Microfinance Reduce Poverty in Bangladesh? New Evidence from Household Panel Data. Discussion Paper Series.*

- Islam, A. 2010. *Medium and Long-Term Participation in Microcredit: An Evaluation Using a New Panel Dataset from Bangladesh*.
- Islam, Nazrul. 2009. *Can Microfinance Reduce Economic Insecurity and Poverty? By How Much and How? : Department of Economic and Social Affairs, United Nations*.
- Jain, Sanjay, and Ghazala Mansuri. 2003. *A little at a time: the use of regularly scheduled repayments in microfinance programs*. *Journal of Development Economics* 72 (1):253-279.
- Kabeer, Naila. 2001. *Conflicts Over Credit: Re-Evaluating the Empowerment Potential of Loans to Women in Rural Bangladesh*. *World Development* 29 (1):63-84.
- Kabir Hassan, M., and David R. Tuft. 2001. *The X-Efficiency of a Group-Based Lending Institution: The Case of the Grameen Bank*. *World Development* 29 (6):1071-1082.
- Karim, A. 2003. *Bank Islam: analisis fiqih dan keuangan: International Institute of Islamic Thought*.
- Karim, N., M.Tarazi, and X. Reille. 2008. *Islamic Microfinance: An Emerging Market Niche*. Washington D.C., USA: *The Consultative Group to Assist the Poor (CGAP) Focus Note*.
- Karlan, Dean, and Jonathan Morduch. 2010. *Access to Finance*. In *Handbook of Development Economics*, edited by R. Dani and R. Mark: Elsevier.
- Khalily, MAB. 2004. *Quantitative approach to impact analysis of microfinance programmes in Bangladesh-what have we learned?* *Journal of International Development* 16 (3):331-353.
- Khan, AA, and I Phillips. 2010. *The influence of faith on Islamic microfinance programmes*.
- Khandker, S.R. 1998. *Fighting Poverty with Microcredit: Experience in Bangladesh*. Oxford University Press , Inc. New York. .
- . 2005. *Micro-Finance and Poverty Evidence Using Panel Data from Bangladesh*. *The World Bank Economic Review*.
- Khandker, S.R., and O. H. Chowdbury. 1996. *Targeted Credit Programme and Rural Poverty in Bangladesh*. Washington, D.C.: World Bank
- Khandker, SR. 1998. *Micro Credit Programme Evaluation: A Critical Review*1. *IDS bulletin* 29 (4):11-20.
- Khawari, Aliya. 2004. *Microfinance: Does it hold its promises? A survey of recent literature: Hamburg Institute of International Economics,Hwwa Discussion Paper*.
- Littlefield, Elizabeth, Jonathan Morduch, and Syed Hashemi. 2003. *Is Microfinance an Effective Strategy to Reach the Millennium Development Goals?* *Focus Note* 24.
- M. Mizanur Rahmana, M. Jafrullahb, and ANM Tawhidul Islamc. 2008. *Rural Development Scheme Bangladesh Limited (IBBL): Assessment Challenges*. *IIUM Journal of Economics and Management* 16, no. 2 139-163.
- Mannan, M. A. 2006. *Innovation and Operational Experience of Risk Management of Islamic Micro-finance Local Challenges and Global Opportunities: A Case Study*

- Approach In Seventh Harvard University Forum on Islamic Finance. Harvard University, USA: Cambridge, MA, USA.*
- McIntosh, Craig, and Bruce Wydick. 2005. *Competition and microfinance. Journal of Development Economics* 78 (2):271-298.
- Morduch, J. 1999. *The microfinance promise. Journal of economic Literature* 37 (4):1569-1614.
- Morduch, Jonathan. 1999. *The role of subsidies in microfinance: evidence from the Grameen Bank. Journal of Development Economics* 60 (1):229-248.
- Mosley, Paul, and David Hulme. 1998. *Microenterprise finance: Is there a conflict between growth and poverty alleviation? World Development* 26 (5):783-790.
- Neff, G. 1996. *Microcredit, microresults. Left Business Observer* 74:4-5.
- Osmani, L.N.K. 1998. *Impact of Credit on the Relative Well-Being of Women Evidence from the Grameen Bank. Institute of Development Studies, 29 (04).*
- Parker, Joan, and Geetha Nagarajan. 2000. *Can Micro-finance meet the poor's Financial Needs in the time of disaster?, U.S.Agency for international Development*
- Parveen, Jannat Ara. 2009. *Sustainability Issues Of Interest-Free Micro-Finance Institutions In Rural Development And Poverty Alleviation. The Bangladesh Perspective. Theoretical and Empirical Researches in Urban Management* 2 (11).
- Rahim, Abdul, and Abdul Rahman. 2007. *Islamic Microfinance: A Missing Component in Islamic Banking. Kyoto Bulletin of Islamic Area Studies* 1-2:38-53.
- Rahman, M. Mizanur, M. Jafrullah, and ANM Tawhidul Islam. 2008. *Rural Development Scheme Bangladesh Limited (IBBL): Assessment Challenges. IIUM Journal of Economics and Management* 16, no. 2 139-163.
- Rahman, MM. 2010. *Islamic micro-finance programme and its impact on rural poverty alleviation. International Journal of Banking and Finance* 7 (1):7.
- Rahman, MM, and F Ahmad. 2010. *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* 3 (2):168-190.
- Uddin, Mohammad Main. 2008. *Credit for the Poor: The Experience of Rural Development Scheme of Islami Bank Bangladesh Ltd. The Journal of Nepalese Business Studies* Vol. V No. 1.