Socio-economic Impact of Remittance on Households: A Study on Khulna, Bangladesh

Riaz Munshi

Abstract: Foreign remittance to Bangladesh now become one of the vital sources of foreign exchange earnings and it also plays a significant role by reducing the foreign-exchange constraint and improving the balance of payments, ensuring imports of various types of capital goods, and raw materials for industrial development. Furthermore, it has also increased the supply of savings and investment for capital formation and development in country’s economic condition and thus it accelerates economic development of a country. But this study attempted to evaluate the impact of foreign remittances on socio-economic condition of households in Khulna city. This paper uses various data of households of Khulna city to analyze the impact of foreign remittances on the socio-economic condition of households. The results of this analysis were compared to those households who do not receive remittances to clearly identify the decision of the households to spend remittances in different sector. Unlike to other studies, this study reveals that households receiving remittances spend less on food consumption, consumer durables and other consumer goods than do households who do not receive any remittances. This study finds that households receiving remittances spend heavily on various investment activities like land purchase, building construction, other investment activities and this investment constitutes more than half of the remittances received during the last 12 months counted from August 2012 to July 2013. This study also finds that households receiving remittances in Khulna city spend more on education than do households having no remittances which is a good sign of any economy as investment in education is treated as investment in human capital. However, this study also finds that foreign remittances help households to spend more on social ceremonies, households’ services and electrical goods which indicate improved living standard and socio-economic condition.

I. Introduction

Bangladesh has been ranked as the 7th highest remittance receiving country in the world and it is considered as second among six Asian countries after India though inward workers’ remittances faced lower growth in Fiscal Year 2011 because of global economic slowdown (Bangladesh Bank, 2011). It is often argued that remittances are an important source of income for households, which can help households increase investments and cope with socioeconomic shocks (Cuong, 2009). Foreign remittances, sent by migrant workers, play a very significant role in earning foreign capital and developing the household condition especially the standard of living for the less developed and developing countries. The foreign remittances have become a critical issue in the globalizing world as it directly contributes to economic growth and poverty reduction in these countries. Remittances sent back to developing countries rose from $31.1 billion in 1990 to $76.8 billion in 2000 to no less than $167.0 billion in 2005 (Kapur and McHale, 2006).

Bangladesh has experienced a significant growth of migrant deployments and inflows of remittances in recent years. Migration from Bangladesh increased rapidly since 2007, which put Bangladesh on a firm footing in remittance earning. Before 2007, around two hundred to four hundred thousand workers migrated abroad from Bangladesh. The figure grew to around nine hundred thousand in just the year 2008. In 2011, approximately 569,000 workers went abroad and remittance inward stood at USD 12 billion (World Bank, 2011). Before 2007, the remittance inflows were around USD 1 to 3 million. Bangladesh has emerged as one of the largest remittance earners despite global economic and domestic political crisis. The economy of Bangladesh is always vulnerable to frequent political instability. The GDP growth rate has been falling since FY 2011 and it came down to 6.03 percent in FY 2013 which is the lowest in last four years due to low investment and deadly political unrest and it is foreign remittance which helped the economy to remain GDP growth above 6 percent (The Daily Star, 17 May, 2013).

At the household level, remittances directly affect the lives of the migrants’ families as remittances increase the consumption and help in investment in education, health and other productive activities (BB, 2011). Another research on this topic shows that as a labor abundant country, Bangladesh has sent over an estimated 6.7 million migrant workers to more than 140 countries across the globe over a period of more than three decades since the mid-1970s while most remittance transfers have been used by migrant-sending households for consumption, there is evidence to show that these transfers have helped to reduce poverty in Bangladesh (Mamun and Nath, 2010).
However, most of the empirical studies on foreign remittances reveal that foreign remittances are making a substantial difference on the households and broadly they also ensure broader community well-being through increasing level of consumption of households, generating income sources of families, and thus they help to reduce poverty in households and increase investments in education, health and sanitation at the household level. At the same time, investments in business enterprises and other occupations which generally include agriculture, large scale housing, craft industries, local human resource development and these activities contribute both the community level or household level development and national level development as well.

In addition, various studies also demonstrate that foreign remittances have macro level impact on the overall economy. Not only these remittances help households development but also they generate savings which is also termed as investment and in the long run this could lead higher the growth of the economy. Moreover, foreign remittances could also lessen foreign exchange constraints and they also help in imports of various goods. Yet, this research mainly focuses on the impacts of the remittances on micro level which is the households of migrants.

Muhammad et al. (2010) Remittances have impacted social status of the families of migrants by improving the life style, giving the opportunity to send children to standard educational institutions and helping them to explore new income generating activities. But his research was conducted on Pakistan and there are some studies available on the economic and social impacts of migration and remittances at the micro and macro level on all over the world and in Bangladesh, but these studies are very general and they do not focus on of impacts of migration and remittances on the household level especially in city areas. There is a lack of empirical evidence of the contribution of recent growth of migration and remittances on migrant sending households in Bangladesh let alone in Khulna city area. Thus, it provides the opportunity to investigate this area and to search the relationship between remittance and households’ socio-economic condition in Khulna city area.

II. Methodology

2.1 Study Area Selection

There are a number of research works available regarding on the socio-economic impact of remittances on various parts of the world and Bangladesh as well but there is hardly any research work on Khulna city where a number of people are still living in abroad. This research was conducted on Khulna city especially regarding the impact of foreign remittances on the socio-economic condition of households. Actually this area has been selected because of considering the convenience of the author and no previous work has been done in this area.

2.2 Research Type and Method

Research has several types such as empirical, constructive and exploratory. This research is especially an empirical one because this research attempted to draw conclusion based on existing data. This research has been done through qualitative approach and based upon the responses of the head of the households whose one or more members live in abroad.

2.3 Sources of Data

To complete the research necessary data were collected from both primary and secondary sources.

2.3.1 Primary Sources

Primary data are referred to as first-hand information collected through various methods such as observation, survey, interview and the like. Depth-interviews of remittance receiving families and non receiving families to collect primary data were conducted through questionnaire. The questionnaire included the relative questions about the study and the respondents were asked to give the best answer as well as to give descriptive answers for some questions where more details are necessary for better understanding and clarification about the any issue.

2.3.2 Secondary Sources

In order to satisfy the objective of the study and to build a supportive background of this research, it was essential to collect different secondary information regarding various aspects of foreign remittances in Bangladesh and theoretical assistance for analysis of data. In this matter, Internet was the prime secondary source for data collection. Especially, various journal articles, thesis papers, organizational reports, conference papers and working papers regarding the related topic were also reviewed as well as websites of Bangladesh Bank, Bureau of Manpower Employment and Training, Bangladesh Bureau of Statistics and World Bank and other sources were also reviewed. Also various reports have been collected from internet which reflects the research objectives.
2.4 Sampling Technique

Result of a research study highly depends on the selection of a proper and suitable sampling technique. Considering this, Convenience sampling method and Snowball sampling method were used for collecting data. Since the research was conducted on Khulna city and a lot of people receive foreign remittances regularly here, it became helpful to collect information following Snowball and Convenience sampling method.

2.5 Data Collection Method

In this study, survey based method was used to collect necessary data. Primary data were collected from the answers of survey questionnaire. The medium of primary data collection was structured questionnaire and in-depth interviews. The questionnaire included questions depending on the following heads:

i. All households members age, sex, educational status, occupational status
ii. Family system, i.e. Joint, Small.
iii. Investment nature of various sectors: in Agricultural and Industrial sector, small business, land purchase, building construction, formal investment in Banks, share and business and others.
iv. Nature of remittances inflow of the households
v. Households income, expenditures and revenues in a time series basis for those two types of households
vi. Sectors of remittance use during last 12 months
vii. Land assets, other assets and their values, nature of purchase of the two types of households
viii. Personal details of migrant are like age, income, educational status, employment status, amount of remittance sent, etc. are avoided to remain the research on only households’ socio-economic condition

The relevant theoretical aspects of the research were collected from different secondary sources, like journals, books, newspaper, research papers and different websites.

2.6 Pre-Testing

Pre-testing is important before going to final collection of data. Pre-testing helps to modify questionnaire and pattern of interview. On the basis of pre-test necessary modifications can be done. Considering the importance of pre-testing, pre-testing has been conducted in this research by taking 10 samples and after that final data were collected by modifying the questionnaire on the basis of pre-testing.

2.7 Variable Selection

For the sake of fulfilling the desired objective, the following variables which are thought to be more influential in describing the socio-economic condition of the migrants’ families have been considered. It is mentionable that while collecting data, different units of measurement were used but in case of data analysis variables are expressed in a unique measurement which is yearly basis. So, the following variables were measured by the suggested way of measurement in the table demonstrated below.

<table>
<thead>
<tr>
<th>Name of the Variables</th>
<th>Unit of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflow of Remittances</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Income</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Savings</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Investment</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Purchase of Land</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Construction/Repair of Houses</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Expenditure on Consumption</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Nature of House</td>
<td>Coding</td>
</tr>
<tr>
<td>Education</td>
<td>Years of Schooling</td>
</tr>
<tr>
<td>Housing Value</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Household Services</td>
<td>Current BDT (Yearly)</td>
</tr>
<tr>
<td>Transport and Communication</td>
<td>Current BDT (Yearly)</td>
</tr>
</tbody>
</table>
Social Ceremonies Current BDT (Yearly)
Electronics and Electrical Goods Current BDT (Yearly)
Furniture and Ornaments Current BDT (Yearly)
Assets valuation Current BDT
Sectors of Remittances Use Last 12 months (August 2012 to July 2013)

Source: Author’s Compilation.

2.8 Data Analysis

The Data analysis refers to editing, coding, classification and tabulation of collected data so that they are easy to analyze. After collection of data from the field survey, the data from questionnaire were grouped, categorized and interpreted according to the objective.

2.9 Tools of Analysis

After giving entry of various variables and data, STATA for windows software was used to conduct two sample t test of both types of households receiving remittances and households receiving no remittances. MS Excel was also used to analyze the data.

III. Results and Discussion

3.1 Impact of Foreign Remittances on Consumption Expenditure

Here consumption expenditure means those expenditures that households spend on food consumption, other consumer goods, consumer durables and housing value that both types of households spend. The consumption expenditure situation of the two types of households is illustrated below through two-sample t test with equal variances.

Unpaired t test of Consumption Expenditure

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consum</td>
<td>34</td>
<td>276058.8</td>
<td>31928.53</td>
<td>186173.7</td>
<td>211099.7</td>
</tr>
<tr>
<td>NR Consum</td>
<td>34</td>
<td>270767.6</td>
<td>49881.97</td>
<td>290859.4</td>
<td>169282</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>273413.2</td>
<td>29392.63</td>
<td>242377.9</td>
<td>214745.3</td>
</tr>
<tr>
<td>Difference</td>
<td>5291.176</td>
<td>59225.36</td>
<td>-112956.1</td>
<td>123538.4</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Household receiving remittances is denoted by Consum variable. Household receiving no remittances is denoted by NR Consum variable. Pr(T > t) = 0.4645 means t value is insignificant.

In the above case Consumption is denoted by Consum and Expenditure is denoted by Expd.

The unpaired t test suggests that the mean difference between the two households consumption expenditure is minor which can also be said that there is not much difference between their consumption expenditure. But in reality, this happens rarely. It is expected that consumption expenditure of remittances receiver households should be statistically significant which did not appear in this research and the probable cause of this dispersion may be because of limited number of samples or because of city area or may also be because of convenience sampling technique.

3.2 Impact of Foreign Remittances on Education of Households

To make comparison between the educational expenses of the two types of households during the last 12 months, it is found that the mean difference between observations of educational expenditure of the remittances receiver and non receiver households is not statistically significant. Educational expenditure is measured by adding all those expenses that households incurred during last 12 months. This situation is shown through unpaired t test of education expenses of remittances receiver households and non receiver households below.
3.3 Impact of Foreign Remittances on Savings of Households

In case of savings behavior of remittances receiver and non receiver households, it is found that remittances non receiver households have been able to save more than that of remittances receiver households during August 2012 to July 2013 or in the last 12 months which is shown through the following result of unpaired t test of both types of households.

Unpaired t test of Savings
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>34</td>
<td>58235.29</td>
<td>24828.5814774.2</td>
<td>7721.175</td>
<td>108749.4</td>
</tr>
<tr>
<td>NRSavings</td>
<td>34</td>
<td>86529.41</td>
<td>22116.42</td>
<td>12895.98</td>
<td>41533.22</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>72382.35</td>
<td>16590.97136812.7</td>
<td>39266.64</td>
<td>105498.1</td>
</tr>
<tr>
<td>Difference</td>
<td>-28294.12</td>
<td>33250.48</td>
<td>-94680.83</td>
<td>38092.6</td>
<td></td>
</tr>
</tbody>
</table>

diff = mean(Savings) - mean(NR Savings)  
Ho: diff = 0  
Ha: diff < 0  
Pr(|T| > |t|) = 0.1989  
Pr(T > t) = 0.8011  

Notes: Household receiving remittances is denoted by Savings variable. Household receiving no remittances is denoted by NR Saving’s variable. 
Pr(T < t) = 0.1989 means t value is statistically insignificant.

The above unpaired t test result suggests that the mean savings difference between remittances receiver and non receiver households are -28294.12 which implies that households not receiving remittances have more savings. Their unpaired t test is statistically insignificant. The cause of this is the significant amount of remittances was used in various types of investment by households receiving remittances during last 12 months.

3.4 Impact of Foreign Remittances on Investment of Households

Investment is one of the important indicators of any economy of the world which helps to predict the economic condition of country. To interpret the socio-economic condition of households, investment plays a significant role as increasing investment of households in different sectors suggests that their economic base is improving which has a strong link with their socio-economic condition. To compare the nature and amount of investment of remittances receiver and non receiver households the following unpaired t test is followed.

Unpaired t test of investment
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invest</td>
<td>34</td>
<td>174529.455830.15</td>
<td>325542.9</td>
<td>60942.12</td>
<td>288116.7</td>
</tr>
<tr>
<td>NR Invest</td>
<td>34</td>
<td>54882.3518801.56</td>
<td>109631</td>
<td>16630.29</td>
<td>93134.42</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>114705.9</td>
<td>30134.57</td>
<td>248496</td>
<td>54557.03</td>
</tr>
</tbody>
</table>

Notes: Household receiving remittances is denoted by Invest variable. Household receiving no remittances is denoted by NR Invest variable. 
Pr(T < t) = 0.1989 means t value is statistically insignificant.
Difference 119647.1 58910.99
1 2.0310 2027.477 237266.6
Ho: diff = 0 degrees of freedom = 66
Ha: diff < 0
Pr(T < t) = 0.0463 Pr(T > t) = 0.0231

Notes: Household receiving remittances is denoted by Invest variable. Household receiving no remittances is denoted by NR Invest variable. Pr(T > t) = 0.0231 means t value is significant at 5 percent level.

The above result of the investment unpaired t test of the both types of households suggests that during last 12 months (August 2012 to July 2013) remittances receiver households invested more and the mean difference between their investment expenditure is 119647 that implies households receiving remittances invested more than that of households receiving no remittances which is statistically significant at 5 percent level.

3.5 Impact of Foreign Remittances on Social Ceremonies

Expenditure on various social ceremonies also indicates the socio economic status of households. During last 12 months (August 2012 to July 2013), remittances receiver households spent 8882.353 more than that of remittances non receiver households. t value of this variable suggests that it is not statistically significant which is shown below.

Unpaired t test of Social Ceremonies

Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Ceremonies</td>
<td>34</td>
<td>45294.12</td>
<td>6468.562</td>
<td>3771.88</td>
<td>3213.73</td>
</tr>
<tr>
<td>NR Social Ceremonies</td>
<td>34</td>
<td>36411.76</td>
<td>3183.659</td>
<td>18563.76</td>
<td>29840.5</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>40852.94</td>
<td>3618.693</td>
<td>29840.5</td>
<td>42888.97</td>
</tr>
</tbody>
</table>

Difference 8882.353 7209.576 -5512.029 23276.74

Notes: Household receiving remittances is denoted by Social Ceremonies variable. Household receiving no remittances is denoted by NR Social Ceremonies variable. Pr(T > t) = 0.1112 means t value is not significant.

3.6 Impact of Foreign Remittances on the Use of Electronics and Electrical Goods

Use of electronics and electrical goods are also considered two important indicators of interpreting the social status and economic wellbeing of the households. Here I have incorporated these two items to compare the expenditure made on both of these two items of two types of households during last 12 month (August 2012 to July 2013). In the following page the impact of remittances on these two important variables are illustrated.

Notes: Household receiving remittances is denoted by Electronics variable. Household receiving no remittances is denoted by NR Electronics variable. Pr(T > t) = 0.1112 means t value is not significant.

The unpaired t test of both of these types of goods is discussed below.

Unpaired t test of electronics good

Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electronics</td>
<td>34</td>
<td>67882.35</td>
<td>8515.244</td>
<td>49651.98</td>
<td>50557.96</td>
</tr>
<tr>
<td>NR Electronics</td>
<td>34</td>
<td>70382.35</td>
<td>15417.54</td>
<td>89898.94</td>
<td>39015.13</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>69132.35</td>
<td>8741.757</td>
<td>72086.37</td>
<td>51683.73</td>
</tr>
</tbody>
</table>

Difference -2500.0 17612.78 -37665.05 32665.05

Notes: Household receiving remittances is denoted by Electronics variable. Household receiving no remittances is denoted by NR Electronics variable. Pr(T > t) = 0.4438 means t value is not significant.

The above result suggests that remittances receiver households during the last 12 months made less expenditure on electronics good than that of remittances non receiver households. Their mean difference is (-2500) and t value is statistically insignificant.
Unpaired T Test of Electrical Goods
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrical</td>
<td>34</td>
<td>97352.94</td>
<td>11842.77</td>
<td>69054.673258.65</td>
<td>121447.2</td>
</tr>
<tr>
<td>NR Electrical</td>
<td>34</td>
<td>88308.82</td>
<td>12806.7</td>
<td>74675.26</td>
<td>62253.39</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>92830.88</td>
<td>8673.845</td>
<td>71526.36</td>
<td>75517.82</td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>9044.118</td>
<td></td>
<td>17443.13</td>
<td>25782.21</td>
</tr>
</tbody>
</table>

\( \text{diff} = \text{mean(Electrical good)} - \text{mean(NR Electrical good)} \)

\( t = 0.5185 \)

Ho: \( \text{diff} = 0 \)
Ha: \( \text{diff} < 0 \)
Pr(T < t) = 0.6971
Pr(|T| > |t|) = 0.6058
Pr(T > t) = 0.3029

Notes: Household receiving remittances is denoted by Electrical variable

Household receiving no remittances is denoted by NR Electrical variable

Their mean difference suggests that remittances receiver households spent more on electrical good and their mean difference is 9044.118 which is minor and not statistically significant.

3.7 Impact of Foreign Remittances on Assets of Households

There is a direct relationship between foreign remittances and assets generation. But without making comparison between remittances receiver and non receiver’s assets it is hard to determine how much remittances can contribute to generate assets of households. For the convenience of data collection, assets are classified as various types but for the analysis of data they are treated as aggregate under the head of total assets. t test of this regard helped us to determine the amount of assets both the types of households possess. Total assets are the addition of the value of the assets that both types of households hold.

Unpaired t test of total assets
Two-sample t test with equal variances

<table>
<thead>
<tr>
<th>Variables</th>
<th>Observations</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>Std. Dev.</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Assets</td>
<td>34</td>
<td>15300000</td>
<td>564448532900000</td>
<td>3845621</td>
<td>26800000</td>
</tr>
<tr>
<td>NR Total Assets</td>
<td>34</td>
<td>7350574</td>
<td>13559427906434</td>
<td>4591888</td>
<td>10100000</td>
</tr>
<tr>
<td>Combined</td>
<td>68</td>
<td>11300000</td>
<td>292172924100000</td>
<td>5508197</td>
<td>17200000</td>
</tr>
<tr>
<td>Difference</td>
<td></td>
<td>7978838</td>
<td>5805066</td>
<td>-3611350</td>
<td>19600000</td>
</tr>
</tbody>
</table>

\( \text{diff} = \text{mean(Total Assets)} - \text{mean(NR Total Assets)} \)

\( t = 1.3745 \)

Ho: \( \text{diff} = 0 \)
Ha: \( \text{diff} < 0 \)
Pr(T < t) = 0.9130
Pr(|T| > |t|) = 0.1739
Pr(T > t) = 0.0870

Notes: Household receiving remittances is denoted by the variable of Total Assets Household receiving no remittances is denoted by the variable of NR Total Assets Pr(T > t) = 0.0870 means t value is statistically significant at 10 percent level.

The total assets analysis of the remittances receiver and non receiver households give the result that remittances receiver households have more assets than those of remittances non receiver. Their mean difference is 7978838 and their t value is statistically insignificant at 10 percent level.

IV. Concluding Remarks

The research has made an attempt to understand through a field investigation and analysis how foreign remittances impact socio-economic condition of households compared with households receiving no remittances in Khulna city. The findings and analysis of the research reveal that socio-economic impact of the foreign remittances on households of migrants is positive. This research reveals that foreign remittances not only are used in households’ consumption but also a significant portion of foreign remittances are used in various types of investment activities that are somewhat different from other research works in this field. We can also conclude that remittances receiver households spend more on education which is also treated as an investment in human capital. From this research it is also found that in Khulna city remittances receiver households spend more on electrical goods and social ceremonies which are considered as important indicators of improving socio-economic condition of households. To conclude, the migration and remittances in Khulna city affect significantly the migrant sending households by improving their socio-economic condition.
References