Causes and Consequences of Rural- Urban Migration in Bangladesh: An Empirical Study in Chittagong City

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Abstract

Migration is a natural process where normally surplus manpower released from the rural sector is needed for urban industrial growth. This study aims at throwing light on central characteristics of migrants, determining factors and consequences of rural-urban migration in the context of Chittagong city, Bangladesh based on a survey of 100 randomly selected migrants and their families. From the dataset, it is found that poverty, job search, landlessness, homelessness, various natural disaster are the main push factors for rural out migration, while easy access to informal sectors and slum area, higher income probability, better service facilities are the main pull factors behind migration. The ordinary least square technique is applied on three regression models which indicate the determinants of income of migrants before and after their migration, change of income after migration. Reducing disparities between rural and urban areas should receive in urgent attention to stabilize the rural out migration.

Keywords: Migration, Rural-urban migration, Push factors, Pull factors, Chittagong city

1. Introduction

Like other developing countries, the rapid growth of rural-urban migration has been a common feature of Bangladesh. Rural-urban migration is the most crucial component of internal migration of any country. Most of the migrants are rural poor who take shelter in

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slums, squatters, footpaths, rail stations and other scattered places. In recent years, most of the cities in Bangladesh are experiencing rapid urbanization and rural urban migration is the most important factor behind it. Bangladesh is one of the highest rates of growth of urban population. Millions of rural people are migrating to divisional cities of Bangladesh. Migration to Chittagong, the port city and commercial capital of Bangladesh is the main focus of this paper. In this paper an attempt has been made to explore why a large number of people from rural Bangladesh are migrating to this city and what are the consequences of this movement on the physical and social environment of the city. There are various reasons for its occurrence and these reasons may vary from country to country. However, the consequences of this type of migration have similar effects for different countries. The work is done on the basis of primary sources and literature based review. There is no empirical effort in this study.

2. Research Methodology

The objectives of this study are to explore the causes of migration of the poor migrants, and try to identify the impact of urban migration on poverty reduction. Two selected areas namely Mohara and Shulokbahar wards are selected as study areas, which are situated in the Chittagong City Corporation. In-depth interviews through structured questionnaire of 100 families were used to collect data. The secondary data are used from statistical yearbook, local administration and various related sources. Descriptive statistics is used for data analysis. For many elements of the study, qualitative and semi-quantitative analysis, according to the research objectives, is carried out. Form data set we have tried to make three regression models to identify the determinants of migrants' income and change of income. The regression models are-

Income before migration = f (Respondents years of schooling, Total number of family members before migration, Total earning members of the family before migration, Monthly saving before migration, Sex, family type, Occupation before migration)

Income after migration = f (Respondent's age, Age squared, respondent's years of schooling, Total number of family members now, Total earning members of the family now, Monthly saving now, Sex, Family type, Occupation after migration)

Change of income after migration = f (Respondent's age, age squared, Respondent's years of schooling, Total number of family members now, Total earning members of the family now, Monthly saving now, Sex, Family type, Occupation after migration)

For this analysis, ordinary least squares (OLS) regression technique is used to determine the factors of migrants' income. The collected data is analyzed by most extensively using software EVIEWS (Econometric Views), MS Excel and MS Word which are found to be necessary in various aspects to complete this study.

3. Empirical Findings

3.1 Determinants of Migration to Chittagong City

The determinants of migration to the city are characterized by two major categories: one is 'push' and the other is 'pull'. During the field work, open-ended question are asked to the migrants about the reasons why they left their origin. In response to this question, they identify some reasons which were responsible for migration. For instance, a migrant informs that his family members were many, he had no land and so being pressed by poverty, he came to city in search of employment. Besides, it is easier to be employed in the informal sectors of urban areas which are not possible in rural areas. Thus in our study, we have noted down the four reasons of migration as the 1st, 2nd, 3rd and 4th reason. Table 1 and 2 show the percentage of respondents who have identified each factor as the 1st, 2nd, 3rd and 4th cause of migration.

It is clear from the Table 1 that the major push factors are searching for work, extreme poverty, too many family members, loss of income source etc. In the villages of Bangladesh, there is no adequate scope for recruiting laborers in agricultural sector. Besides, rural areas are still backward in respect of industrialization. So unemployment is a general feature of the villages in our country. Adult, young, adolescent and children of rural areas do not get satisfactory employment. On the other side, industries and garment factories are centralized in urban areas and the opportunities of getting employment in informal sectors are more in urban areas. So, the rural people come to the cities in search of employment. In our study 19% respondents consider the search of employment as the 1st reason of migration while 21%, 13% and 12% respondents identify the search of employment as the 2nd, 3rd and 4th reason of migration respectively.

Poverty acts as the main factor in each step of migration. When, work is not available, food is scarce, poverty engulfs from all the sides, people try their best to survive. Accordingly, when poor people even after trying their best fail to provide food their hungry family members and beloved children, they migrate to other places in order to escape themselves from poverty and to lead a better life. 11% of the respondents have identified extreme poverty as the first reason of migration, 18% as the 2nd reason, 12% as the 3rd reason and 8% as the 4th reason.

Bangladesh is a densely populated country. So, population problem is one of the major problems of Bangladesh. In rural areas, there are many families with 8-10 family members. It becomes difficult to provide those additional family members with food and shelter. So because of large number of family members, many people migrate to cities and live separately. 8% respondents have identified it as the 1st reason, 10% as the 2nd reason, 5% as the 3rd reason and 6% as the 4th reason of their migration. Another disadvantage of overpopulation is landlessness. Rapid population growth and the prevailing inheritance law are creating wide landlessness in rural areas. So, landless people migrate to cities in search of employment. According to Table 1 6% respondents have identified landlessness as the 1st reason, 7% as the 2nd reason, 2% as the 3rd reason and 3% as the 4th reason of migration.

From social and economic perspective female children are an additional burden for Bangladeshi society. So the poor families remain very much anxious for the marriage of their daughters and want to reduce the number of family members through marriage. But dowry is unavoidable for marriage and it becomes impossible for poor father to provide the demanded dowry. So the poor rural women come to cities and work in garments factories and earn money to fulfill the demanded dowry. Survey shows that at least 2% respondents have identified it as the major reason of migration. Besides, being newly married and divorced, many women come to cities leaving their villages. These aspects have been shown as the marital factors in Table 1.

Bangladesh is a riverine country. So, river-erosion is a common phenomenon for the people living in river bank areas. River erosion washes away houses, assets and people become helpless and shelter less. So they migrate to the cities in order to construct their new dwelling place. In the study, 5% poor migrants have mentioned river erosion as the major reason of migration. Otherwise Bangladesh is frequently exposed to multiple forms of natural disasters for its geographical location and ecological hazards. People affected by different types of natural calamities like storm, flood, drought, excessive rainfall, gather in cities after losing their shelter and asset. So like river-erosion, different types of natural calamities also act as push factors. About 5% and3% respondents have identified natural disaster as the 1st and 2nd cause of migration. In rural areas, poor section of people borrows money from different informal sectors like affluent Mohajans, NGOs, Jotder, landlords etc. Interest rate is usually higher in these sectors. Some migrated families inform that they borrowed money from landlords in exchange of mortgaging their land. Since they could not repay the borrowed money, they had to lose their land/asset and ultimately they left their native villages. Again, some migrated families inform that they took loan from NGOs but failed to utilize that money properly. Rather they spent all the loan money for family consumption or for repairing houses and thus became defaulter. Then they gathered in Chittagong city, engaged in informal sectors and began to earn money. After repaying the loan money, they came back to the town. Temporary migrants started dwelling in the town permanently through this system. Failure to repay loans has been identified as the 1st, 2nd and 3rd cause of migration by 6%, 7% and 2% respondents respectively.

People can lose their source of income due to several reasons. Losing the source of income, they gather in the cities in search of new employment. Loss of income source has been identified as the 1st, 2nd, 3rd and 4th cause of migration by 7%, 3%, 4% and 2% respondents respectively.

Social scientists argue that loosing family bondage plays a role in the process of making temporary migrants into permanent ones. Losing family bondage has been identified as the 1st, 2nd, 3rd and 4th reason by 2%, 3%, 3% and 5% respondents respectively.

People also migrate into cities because of having no house in the village. In the study, 4% respondents have identified it as the major reason of migration. People also migrate to cities due to quarrel and contending passions within families and races or communities. Personal maladjustment in the community or family has been identified as the 1st cause of migration by 5% respondents, 2nd cause of migration by 2% respondents and 4th cause of migration by 4% respondents. People also migrate to cities in order to escape from village enemies. It has been identified as the 1st, 2nd, 3rd and 4th reason of migration by 3%, 2%, 5% and 2% respondents respectively. 2% respondents have claimed that religious problem (e.g. religious harassment, minority, Fotowa / religious edictetc.) is the main cause of their migration. The other major factors like lose/death of guardian, changing hereditary profession are found to be pushing them to migrate in Chittagong city.

Let's discuss the pull factors of Table 2. Opportunities of working in informal sectors play a vital role in influencing rural-urban migration. Though different push factors have been identified as the main cause of migration, opportunities of working in informal sector persuade the migrants to take the decision. 3% and 14% respondents have identified it as the 2nd and 3rd cause of migration while 18% respondents have identified it as the 4th cause of migration. Again, slums have grown recklessly here and there in urban areas. Though environmental conditions of these slums are very bad, poor people coming from rural areas can easily take shelter in these slums at minimum price. So, one of the main pull factors of migration is easy access to slum areas. 2%, 7% and 16% respondents have identified it as the 2nd, 3rd and 4th cause of migration respectively.

Everyone wants to lead a solvent and happy life increasing his/her income. So the possibilities of earning more and better service facilities influence the migration decision. The possibilities of earning more after coming from rural areas to urban areas has been identified as the 1st, 2nd, 3rd and 4th cause of migration by 1%, 3%, 8% and 8% respondents respectively.

Poverty is not the only factor pushing people towards the cities, but attraction factors pull them too. The attraction factors are gas, electricity (legal or illegal), water supplies, colorfulness of the city, willingness to change and see new place etc. It is clear from the data that 2% and 3% respondents have identified it as the 3rd and 4th cause of migration respectively.

3.2 Income of Migrants

In the theoretical section we have discussed that the main principle of neo-classical theory is the various income levels between two geographical areas which bound to move from low income area (rural) to high income area (urban) and this is due to demand and supply of labor in specific areas. It has been found in our field level survey that monthly family income of 73% respondents at origin place was less than tk. 5000 and the highest income was tk. 15000 (Figure 1). Only 8% and 19% sample household had pre-migration monthly family income of tk.10001-tk.15000 and tk.5000-tk.10000 respectively. On the other hand, family incomes of only 4% respondents are less than tk.5000 after migration. Again, family incomes of 47%, 27%, 14% and 5% respondents are within tk.5000 to tk.10000, tk.10001 to tk.15000, tk.15001 to tk.20000 and tk.20001to tk.25000 respectively. After migration, the respondents also have maximum family income more than tk.25000 and the percentage is 3% of the total respondents.

3.3 Determinants of Income

According to dataset it is tried to analysis three regression models with dependent variables monthly income of respondents before migration, income after migration and the change of income after migration and the independent variables: respondent's age, age squared, years of schooling, occupation, family size, family type, earning member of the family and monthly saving. Here we consider the logarithmic values of all these three dependent variables to make interpretation of the co-efficient values in percentages.

The statistical model depicts that these three models have different R-squared values which is called the coefficient of determination. It clarifies the decomposition of total variation of the dependent variable explained by one or more explanatory variables including in the regression model. The value of R-squared lies between 0-1 (Hill, 2008: 81). From the dataset the R-squared values for the model of income before migration is 0.487, for the model, income after migration is 0.608 and for the model, change of income after migration is 0.476. We can conclude for first regression model 48.7% of the variation of income before migration is explained by the regressor variables that include in the model. In microeconomics it is very difficult to explain household behavior fully. For cross-sectional data in microeconomics the R-squared values from 0.10 to 0.40 are very common even if the regression model is much larger whereas it is 0.90 or higher for time series data in macroeconomic analysis. Therefore, it is not the only way to evaluate the quality of the model based on the prediction of sample data used to construct the estimates rather than it is also important to consider the signs and magnitude of the estimates, statistical and economic significance and the precision of their estimation (Hill, 2008: 83). For second model it can say that 60.8% of the total variation of income after migration is explained by the regressor variables that include in the model. And for the model with dependent variable the change of income after migration, 47.6% of the total variation is explained by the independent variables that conclude in the model.

For first regression model, the findings in the Table 3 show that the independent variables total number of family members before, total earning members of the family before, monthly saving before, female respondent, joint family type and employed as domestic servant before migration are significant for the dependent variable income of the respondents before

migration at 1%, 5% and 10% level of significance while the regressor variables respondent's years of schooling before migration, occupation those who were involved as agricultural labor, non-agricultural labor, service holder and others, have no significant effect. The independent variables of those who regressed to dependent variable respondent's income before coming to Chittagong; among them respondent's years of schooling before migration, female respondents, occupation of those who were involved as agricultural labor, nonagricultural labor, domestic servant, service holder and others, have had negative effect.

The second regression model illustrate from the Table 3, the independent variables age of respondents, age squared, total number of family members now in Chittagong, monthly saving after migration, female respondents, joint family, present occupation as worker in construction, domestic servant and rickshaw puller are significant for the dependent variable income of respondent after migration at 1%, 5% and 10% level of significance whereas respondent's years of schooling, total earning members of the family now in Chittagong, occupation now as worker in transport, worker in hotel/shop/restaurant, service holder and others have no significant effect on the considered dependent variable. Among them the regressor variables age squared of the respondents, total earning members of the family after migration, female respondents, joint family type, occupation now as worker in hotel/shop/restaurant, service holder and others have negative upshot on income after migration.

From the third regression model get from the Table 3 that the dependent variable change of income of the respondents after migration have significant effects by the independent variables age of the respondents, age squared, total number of family members in Chittagong, total earning members in family now, monthly saving after migration, female respondents, joint family type, present occupation as domestic servant and rickshaw puller at 1%, 5% and 10% level of significance. However, respondent's years of schooling, present occupation as worker in construction, worker in transport, worker in hotel/shop/restaurant, service holder and others have no significant effect on the dependent variable. Among them the independent variables age squared of the respondents, total earning members of the family, female respondents, joint family type, and present occupation as worker in transport, worker in hotel/shop/restaurant, service holder and others have negative effect on the respondents' change of income after migration.

The interpretation of the coefficient values of independent variables for the dependent variable respondent's income before migration find from the Table 3, for each year of schooling completed by respondent, the monthly income of respondent had decreased by 0.9% before come to Chittagong. This could be happened because most of the respondents of the sample are poor and illiterate. But the income has increased by 0.5% and 0.9% for the dependent variables monthly income after migration and the change of monthly income respectively for each year of schooling increased by the respondent.

The second and third regression model concludes along with age, age squared as independent variable. This is because we usually expect that the young, inexperienced workers have relatively low wages but their wages go up when their experience is increasing. After their middle age the wages again decline up to their retirement age. Therefore to capture these life patterns of wages conclude age and also age squared to explain the exact effect of the respondent's level of income. We generally expect that the coefficient value of the independent variable age squared is always less than zero and the coefficient value for age is greater than zero. This expectation is depicted from the data that 0.3% monthly income after migration and 0.2% change of income have decreased for one unit change of age squared value. And 2.2% monthly income has increased after migration for increased of each year of age of the migrants while the change of monthly income has increased about 1.4%.

The study illustrates that the total number of family members had positive effect on monthly income before migration, monthly income after migration and the change of monthly income. This is possible because for survival of more family members more earning is needed. It is found from Table 3 that one unit increase of family members has increased 0.2%, 13.7% and 19.5% of respondents monthly income before migration, monthly income after migration and the change of monthly income after migration respectively.

Total earning members of the family have positive effect on monthly income before migration but negative effect on monthly income after migration and the change of monthly income. According to Table 3 one unit increase of earning members of the family have increased 15.1% of respondent monthly income before coming to Chittagong but 13.4% and 7.7% decreased respectively his/her monthly income and the change of monthly income respectively after his/her arrival to Chittagong city.

We usually expect that the monthly savings of the respondents must have positive effect on respondent's income which also demonstrates from study. The monthly savings show highly significant for the dependent variables in all three models, if the respondents want to upgrade one unit of his/her monthly savings, his/her monthly income need to increase 6.5% per month before migration; 1.7% monthly income after migration and 2.7% for the change of monthly income after their migration.

We consider the regressor variables sex, family type and occupation as dummy variables that conclude in the model. It is found from the model, the coefficient of the female respondent is -0.111 reflect that the monthly income before migration for the female respondents was 11.1% less than male respondents which are considered as reference group. For the other two models the dependent variables respondent's monthly income and the change of monthly income after migration the coefficient values for the female respondents are -0.179 and -0.207 respectively which indicate that the monthly income and the change of income after migration are 17.9% and 20.7% less for the female respondents than the male respondents.

The independent variable types of family also have impact on three dependent variables. According to Table 3 the monthly income before migration in case of joint family was 58.1% greater than the single family, on the other hand monthly income and the change of monthly income after migration in case of joint family is 35.9% and 31.2% less than the single family.

Occupations are significantly related to the monthly income of the respondent's before migration, after migration and also for the change of income after migration which induce them for internal migration to acquire the better living. It is discussed earlier that before migration occupations were divided into six categories unemployed, agricultural labor, nonagricultural labor, domestic servant, service holder and others; consider it as dummy variable to find their separate effect in comparison with the reference group unemployed. On the other hand after migration occupations are divided into eight categories worker in garments, worker in construction, worker in transport, worker in hotel/shop/restaurant, domestic servant, service holder, rickshaw puller and others. For the last two model worker in garments factory consider as reference group. From Table 3, the occupations are not significant for the dependent variable monthly income before migration except those who are domestic servant. And the interesting thing is that all types of occupations before migration have had negative effect for first model where the dependent variable is monthly income before migration. But in our second model it is found that the occupations as worker in construction, domestic servant, and rickshaw puller are significant. It shows that worker in construction, worker in transport, domestic servant and rickshaw puller have positive effect. The coefficient value for worker in construction is 0.026 which imply that worker in construction have 2.6% more monthly income than the worker in garments and the coefficient values for the other occupations worker in hotel/shop/restaurant, service holder and others are -0.214, -0.069 and -0.049 respectively which imply that the respondents who involve in these occupations have 21.4%, 6.9% and 4.9% less income than the reference category garments worker respectively after their migration. The third model where consider the monthly change of income after migration as dependent variable depicts that the categories domestic servant and rickshaw puller are highly significant. Both categories have positive effect on the dependent variable. The coefficient values from the Table 3, for domestic servant is 0.309 and for rickshaw puller is 0.505 which imply that those respondents who worked as domestic servant and who worked as rickshaw puller has 30.9% and 50.5% more monthly change of income respectively than the reference category of those who have worked in garments factory after their movement to Chittagong city.

3.4 Impact of Migration on Women's Status

In rural society of Bangladesh, women are socially, politically and economically less powerful than men. Women migrate to cities for various reasons. Majority of the rural women migrate urban areas as a result of their male migration.

In our sample, 50% women have come to city (their husband's workplace) with their husbands after marriage. Besides, 12% women have come to city before their marriage in search of employment to survive their family. 4% women have come to city in order to escape themselves from the torture of their husbands and the members of their in laws' house. 28% women have migrated to city with their husbands in order to enjoy greater opportunities. Being divorced and widowed, 6% women have migrated to city for the survival of their issues.

Only 5% women migrants (age 15 to 50 years) of the sample households were employed before migration and almost all of them worked as household servants. The after migration scenario is quite opposite. More than 90% of the female migrants (age 15 to 50 years) are employed after migration. 67% of the employed women respondents work in garments and manufacturing companies. 13% women work as domestic servants, 8% work as petty traders, 5% work as garbage pickers and 7% women work in other informal sectors.

In the study, sample women migrants demonstrate high aspirations regarding the future of their issues. Majority of the respondent's aspire for their daughters to be housewives or teachers or garments worker their sons to run independent business or to hold a job in the government office. They prefer a minimum age at marriage between age 18 and 20 years and 25 and 30 years respectively for their daughters and sons. Among the respondents, young women (age 20 to 30 years) are very interested to make their issues educated. Though they know that educating their issues will be very difficult for them because of the severe pressure of poverty, they will try their best to make them educated.

4. Problems of Migrants and Recommendations

According to field survey, the main problems that migrants face include unsafe environment of work where risk of injury or death, vulnerable to flooding, various health problem due to environmental degradation, household violence, polygamy, divorce, physical and mental torture on women, verbal and physical harassment at the slum/work place, sexual harassment by employers or bosses or slum owner in case of the females etc.

Most of the urban poor have no permanent employment in the city to manage their lives. They involve themselves in a series of occupations at different stages of their stay in the city and they often become unemployed. As it is difficult to survive in the city without any employment, they usually undertake jobs for short periods of time. Out of the total respondents 20% are working in very unsafe environments where they are at risk of injury or death. Despite such risks they remain in these jobs as they have no alternative in the city. The urban poor have no access to any type of health insurance or safety health cover.

Slum settlements tend to be built on vacant government land or private vacant land located in low-lying areas vulnerable to flooding and other natural disasters. In the study, 33% of the sample migrants suffer in flooding problem during the rainy season.

Many slum settlements are built on waste or polluted spaces exposing residents to industrial noxious wastes. On the other hand, houses in slum settlements are usually made of flimsy material which provides little protection from fire or monsoon rain. These conditions with high density of population and poor sanitation exacerbate the risks of waterborne disease such as cholera and airborne disease such as influenza, pneumonia, and tuberculosis. 19% of the sample migrants have mentioned that at least one member from their families suffer from these types of diseases over the year.

Household violence, polygamy, divorce etc. are very common in slum areas. These problems exist in 21% sample migrants' households. Though many women have become financially solvent after migration, most of them are still confined in the males' command. 10% of the female respondents have reported that they are tortured physically or mentally by their husbands or male guardians.

Many of the poor migrants are often harassed verbally and physically by their employers at workplaces and by the powerful persons in the slums. They are rebuked, punished or slapped if they err in their work. 32% respondents have mentioned that they frequently fall victim to these types of problems.

On the other hand 4% female respondents are sexually harassed by their employers or bosses while working as maidservants or garments workers. Often the helpless poor female migrants fall victim to eve teasing as well. They generally cannot protect themselves against such harassment because of their vulnerability. They know that they may lose their jobs if they protest and there they may cause their families economic hardship. Mostly the single female migrants fall in insecurity after migration. Being cheated, some of them have been compelled to be the residents of dark society. The prevalent social circumstances of Bangladesh are liable for this.

Based on the findings of this study, some important recommendations have been made:

- I) People will try to avail themselves of economic opportunities. Government should promote economic activities in rural areas and adopt a balance development strategy to encourage settlements and other functions in small and intermediate cities. An appropriate balance between rural and urban economic opportunities through the spread of small scale industries throughout the countryside and the reorientation of economic activities and social investments towards raising income facilities in rural Bangladesh would seem to be good tools to discourage rural-urban migration.
- II) The pull factors, which attract the rural people and induce them to migration to urban locations can largely be attributed to the direct or indirect results of government's development policy and effort, that always been biased towards the urban areas. So,

- functional amenities such as supply water, electricity, gas, recreational facilities should be provided in the rural areas.
- III) Government should introduce town-housing schemes to encourage the slum people for returning to village, with incentives, such as loans, basic housing, a common pond for fishing etc.
- IV) Good roads should be constructed in the rural areas; also credit facilities should be made available with relaxed terms and conditions.
- V) Some vocational courses with skill acquisition programme is imperative to migrants as that will make them take advantage of large commercial network of the area to fight against poverty and reduce migration. This is a way the government can provide a working policy that will encourage the youths in the area towards selfdevelopment.
- VI) Conference, seminars and workshops should be organized to enlighten the youths to help themselves acquire some basic skills like handicrafts, poultry firming, soup manufacturing etc.
- VII) The slums which exist in the cities can be shifted to the suburbs by providing all the civic amenities and special transportation system to them to go to their regular works, that can be freed from pressure for the over population of the hub of the cities.
 - The concerned bodies of the government of Bangladesh, policy makers and civil societies are requested to kindly give thinking over these matters.

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Appendix

Table 1: Push factors of migration

No.	Push factors	Percentage as 1 st cause	Percentage as 2 nd cause	Percentage as 3 rd cause	Percentage as 4 th cause
1	Searching for work	19	21	13	12
2	Extreme poverty	11	18	12	8
3	Homelessness	4	3	4	0
4	Landlessness	6	7	2	3
5	River erosion	5	0	0	0
6	Natural disasters	5	3	0	0
7	Marital factors (divorce, newly married etc.)	7	3	0	0
8	Loosened family bondage	2	3	3	5
9	Too many family members	8	10	5	6
10	Loss/death of guardian	6	2	0	0
11	Loss of income source	7	3	4	2
12	Failure to repay loans	6	7	2	0
13	Religious cause (minority, conflict, fotowa etc.)	2	0	0	0
14	Changing hereditary profession	3	2	2	0
15	Escaping from village enemy	3	2	5	2
16	Personal maladjustment in the community or family	5	1	4	0

Source: Sample survey

Table 2: Pull factors of migration.

No.	Push factors	Percentage as 1 st cause	Percentage as 2 nd cause	Percentage as 3 rd cause	Percentage as 4 th cause
1	Easy access of informal sectors	0	3	14	18
2	Easy access to slum area	0	2	7	16
3	Higher income probability	1	3	8	8
4	Better service facilities	0	2	5	6
5	Positive information about the city	0	1	8	9
6	Bright city lights	0	0	2	5
7	Trafficking	0	2	0	3

Source: Sample survey,

Table 3: Determinants of income and change of income

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	Dependent variable					
Independent variable	Log monthly income before migration	Log monthly income after migration	Log change of monthly income after migration			
	Co efficient values					
R-squared value	0.487	0.608	0.475			
Constant	7.033	8.672	6.645			
Age of the respondent's	N/A	0.022*	0.014*			
Age squared	N/A	-0.003***	-0.002*			
Respondent's years of schooling	-0.009	0.005	0.009			
Total number of family members before coming to Chittagong	0.002*	N/A	N/A			
Total number of family members now in Chittagong	N/A	0.137***	0.195***			
Total earning members of the family before migration	0.151*	N/A	N/A			
Total earning members of the family after migration	N/A	-0.134	-0.077*			
Monthly saving before migration	0.065***	N/A	N/A			
Monthly saving after migration	N/A	0.017***	0.027***			
Male respondents consider as reference category	REF					
Female respondents	-0.111*	-0.179**	-0.207**			
Nuclear family consider as reference category	REF					
Joint family	0.581***	-0.359***	-0.312*			
Unemployed before migration consider as reference category for occupation	REF					
Agricultural labor before migration	-0.081	N/A	N/A			
Non-agricultural labor before migration	-0.272	N/A	N/A			
Domestic servant before migration	-0.438*	N/A	N/A			
Service holder before migration	-0.112	N/A	N/A			
Others before migration	-0.201	N/A	N/A			
Worker in garments factory after migration consider as reference category for occupation	REF					
Worker in construction after migration	N/A	0.026*	0.473*			
Worker in transport after migration	N/A	0.011	-0.353			
Worker in hotel/shop/restaurant after migration	N/A	-0.214	-0.231			
Domestic servant after migration	N/A	0.152**	0.309**			
Service holder after migration	N/A	-0.069	-0.512			
Rickshaw puller after migration	N/A	0.092**	0.505***			
Others after migration	N/A	-0.049	-0.059			

^{***} Highly significant at 1% level of significance

^{**} Significant at 5% level of significance

^{*} Significant at 10% level of significance

Figure 1: Respondent's monthly family income.

Source: Sample survey