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Causes and Consequences of In-Migration at Rajshahi City Corporation, Bangladesh

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Abstract: This study is to identify the effects of socio-economic and demographic characteristic on causes and consequences of migration. The data of this study was collected by purposive sampling and interview method in Rajshahi City Corporation. The Logistic Regression Analysis has been used to recognize the influence and determinant of migration. It is indicated that education level, monthly income, type of family and land property significantly effect on causes of migration among the selected variables. The risk of migration is higher times for migrants with educational level primary, secondary and above as compared to migrants with illiterate.

Key words: Migration socio-economic and demographic variables, logistic regression model risk factors

INTRODUCTION

Bangladesh is a small country of 147570 square kilometers area with a population of around 144.43 million people (UN, 2006). Thus the population of Bangladesh are mostly poor and maximum of them lives in rural areas; 91.2 and 8.8% of rural and urban areas in 1974, 84.82 and15.18% of rural and urban areas in 1981, 80.37 and 19.63% of rural and urban areas in 1991 and now 76.9 and 23.1% of rural and urban areas in 2001 correspondingly (BBS, 2003).

Much of the existing research on migration in developing countries has focused on rural-urban migration and urbanization. Governments and international organizations have shown concern about the rapid urban growth in developing countries and the social, economic and environmental problem associated with this growth. Despite the important role of natural increase in urban growth, rural-urban migration and the rural-urban migrants themselves have received substantial attention from both policy makers and demographic researchers. Internal migration suggests that towns and secondary cities will serve as intermediate destinations for rural-urban migrants and highlights rural-urban movements in developing countries (White and Lindstrom, 2005).

Migrants are migrated to cities and towns because they attracted by livelihood opportunities. Studies on migration have been established positive association between levels of infrastructure development of a region and the magnitude of out-migration (CUS, 1990). The privileged migrants occasionally create employment opportunities in urban areas for the poor migrants mostly in the form of wage laborer. Though the incidence of rural-urban migration in any developing country is higher, a distinct selectivity with respect to age, sex, caste, marital status, education, occupation etc., occurs and the propensity of migration differs significantly among these socio-economic groups (Lee, 1966; Sekhar, 1993; Yadava, 1988). Migration studies in different regions of developing countries have general dealt with the economic aspects of migration. However, majority of these studies has dealt with the differentials and determinants of migration focusing mainly on causes and consequences of migration (Afsar, 1995; Hugo, 1991; Mclnnis, 1971; Mehta and Kohli, 1993; Selvaraj and Rao, 1993; Stoeckel *et al.* 1972; Wintle, 1992; Yadava, 1988). Several studies reports that determinants of migration vary from country to country and even within a country, it varies depending on the socio-economic, demographic and cultural factors. High unemployment rate, low income, high population growth, unequal distribution of land, demand for higher schooling, prior migration patterns and dissatisfaction with housing have been identified as some of the prominent determinants of rural out-migration (Bilsborrow *et al.*, 1987; Nabi, 1992; Sekhar, 1993; Yadava, 1988).

The importance of this study (in-migration) in affecting the growth and decline of population and in modifying migrant's socio-economic and demographic characteristic of Rajshahi City Corporation has recognized. The objective of this paper is to focus on the determinants of migration and hence identifies the factors influencing on causes of migration.

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MATERIALS AND METHODS

The data of this study was collected under the project entitled "Strengthening the Department of Population Science and Human Resources Development", sponsored by UNFPA, Bangladesh from five wards in Rajshahi City Corporation. A purposive sampling technique and interview method were applied to procure the data by using a set of questionnaire during 8th to 25th October 2005 and cover one thousand samples. To cover the information of this study, only in-migrants were included as respondents. An in-migrant is defined as a person who enters a migration with respect to the area of destination by crossing its boundary from some point-outside the area, but within the same country.

The logistic regression model is

$$Y = \frac{e^{\alpha+\beta_1X_1+\beta_2X_2+...+\beta_nX_n}}{1+e^{\alpha+\beta_1X_1+\beta_2X_2+...+\beta_nX_n}}$$

Where, Y is the dichotomized dependent variable, X_i are categorical independent variables, β_i are the parameters and α is constant. The multivariate logistic regression model is concerned an appropriate tool to analyze such data since the dependent variables, causes of migration and stream of migration, is dichotomized. The models are considered as follows:

$$\frac{e^{\beta_0+\beta_{1xi}}}{1+e^{\beta_0+\beta_{1xi}}} \quad (1)$$

Model-1 for causes of migration: 1 = poverty and 0 = otherwise.

Model-2 for stream of migration: 1 = rural to urban and 0 = otherwise.

RESULTS AND DISCUSSION

Socio-economic and demographic characteristic of migrants: Table 1 shows that maximum number of migrants (98.7%) has age more than 24 years and 0.2% migrants belong to the age under 20 years. It is noticed that 98.5% migrants are married and only 0.2% are other. It is also found that 86.3 and 13.7% migrants are Muslim and non-Muslim, respectively. The respondents are reported that 89.4% migrants have been completed secondary and above education and only 2.1% have no education. The occupation established that 66.8% migrants have been involved in service and only 1% has engaged as peasants and the rest of being other category. Table 2 also shows that 39.3% migrants are

Table 1: List of independent variables of male migrants for logistic regression

Independent variables	Type	Categories
Residence	Categorical	1 = Urban
		2 = Rural
Respondent's age	Categorical	1 = <20 years
		2 = 20-25 years
		3 = 25+ years
Religion	Categorical	1 = Muslim
		2 = Non-muslim
Children still living	Categorical	1 = 0-1
		2 = 1-2
		3 = 3+
Educational level	Categorical	1 = Illiterate
		2 = Primary
		3 = Secondary and above
Occupation	Categorical	1 = Farmer
		2 = Service
		3 = Others
Monthly income	Categorical	1 = <3000
		2 = 3001-6000
		3 = 6001-9000
		4 = 9000+
Type of family	Categorical	1 = Single family
		2 = Joint family
Number of family member	Categorical	1 = <2
		2 = 2-4
		3 = 4+
Land property	Categorical	1 = <25
		2 = 25-100
		3 = 100+

Table 2: Distribution of migrants based on socio-economic and demographic characteristics

Name of variable	Number of migrants	Percentage (%)
Place of birth:		
Urban	349	34.9
Rural	651	65.1
Migrant's age:		
<20	2	0.2
20-24	11	1.1
24+	987	98.7
Marital status:		
Married	985	98.5
Widowed	13	1.3
Others	2	0.2
Religion:		
Muslim	863	86.3
Non-Muslim	137	13.7
Educational level:		
Illiterate	21	2.1
Primary	85	8.5
Secondary and above	894	89.4
Occupation:		
Farmers	10	1.0
Service	668	66.8
Others	322	32.2
Monthly income		
<3000	129	12.9
3001-6000	264	26.4
6001-9000	214	21.4
9000+	393	39.3
Type of family:		
Single	925	92.5
Joint family	75	7.5
Number of family member:		
0-2	79	7.9
3-4	571	57.1
4+	350	35.0
Land property:		
<50	807	80.7
50-100	24	2.4
100+	169	16.9

monthly-earned Tk. 9000+ and only 12.9% are income below Tk. 3000. Most of migrants 92.5 and 7.5% have been lived with single and joint family whereas 57.1 and 7.9% migrants have been living with 3-4 and 0-2 family members, respectively. It is observed that 80.7 and 2.4% migrants have less than 50 and (50-100) decimal land correspondingly.

Determinants of migration: The logistic regression has applied to study the determinants of in-migration. As shown in Table 3 and 4 that four variables are significantly effect among the selected independent variables. Table 3 shows that the age of migrants 20-25 years has 1.230 times higher risk of migration to be causes of poverty than those with under aged 20 years (reference category). On the other hand, migrants with aged 25 years and above have (1-0.697) ×100 = 30.3 percent lower risk of migration to be causes of poverty than that of reference category. It is found that the educational qualification is highly significant at 1% level and affected on causes of migration. The odds ratios of primary, secondary and above are 0.532 and 0.254 times lower risk of migration for causes of poverty than that of illiterate migrants. The odds ratio of services and others group are 0.388 and 0.507 times lower risk of migration for causes of poverty than that of farmers.

Monthly income of migrants is significant at 10% level and effected on causes of migration. The risk of migration for monthly income belongs to the range TK. (3001-6000), (6001-9000) and 9000+ are 0.767, 0.726 and 0.545 times lower to be causes of poverty than that of income below TK. 3000. Table 3 shows that the type of family is significant at 5% level consequence but it has negatively (-0.531) effect on causes of migration. The odds ratio for joint family is 0.532 times lower risk of migration for causes of poverty than that of single family. The odds ratios for land property 25-100 and 100+ decimal landowners are 2.082 and 0.803 times higher and lower risk of migration to be causes of poverty than that of <25 decimal landowners.

Table 4 shows that Place of birth is significant at 1% level and positively influenced on causes of migration. The odds ratio of rural areas is 58.631 times higher risk of rural-urban migration than that of urban areas. The odds ratio of migrants with aged 20-25 and 25+ years are 0.232 and 0.666 times lower risk of rural-urban migration than that of aged under 20 years. It is also indicated that the educational qualification is significant at 10% level and effects on migration. The odds ratios of primary, secondary and above are 0.942 and 0.600 times lower risk of rural-urban migration than that of illiterate migrants. The odds ratio of services and others occupation are 1.485 and 1.553 times higher risk of rural-urban migration than that of farmers. The risk of rural-urban migration for monthly income belongs to the range TK 3001-6000, 6001-9000 and 9000+ are 0.767, 0.726 and 0.545 times, respectively lower than that of income below TK. 3000. It is found that the type of family is significant at 5% level effect of migration. The odds ratio for joint family is 0.532 times lower risk of rural-urban migration than that of single family. Land property of male migrants is significant at 5% level consequences of migration. The odds ratios for land property (25-100) and 100+ decimal landowners are 2.082 times higher and 0.803 times lower risk of rural-urban migration than that of <25 decimal landowners.

Table 3: Logistic regression estimates for the effect on causes of migration with demographic and socio-economic variables

Characteristics	Coefficient (β)	S.E. of estimates(β)	Wald	Significant (β)	Odds ratio
Place of birth					
Urban (r. c.)	-	-	-	-	1.000
Rural	0.145	0.160	0.814	0.367	1.156
Respondent's age					
<20 (r. c.)	-	-	-	-	1.000
20-25	0.207	1.495	0.019	0.890	1.230
25+	-0.361	1.466	0.061	0.805	0.697
Religion					
Non-Muslim (r. c.)	-	-	-	-	1.000
Muslim	-0.212	0.231	0.842	0.359	0.790
Children still living					
0 (r. c.)	-	-	-	-	1.000
(1-2)	-0.041	0.197	0.043	0.835	0.960
3+	-0.072	0.267	0.072	0.788	0.931
Educational level					
Illiterate (r. c.)	-	-	-	-	1.000
Primary	-0.632	0.529	1.401	0.237	0.532
Secondary and above	-1.371	0.518	5.439	0.011*	0.254
Occupation					
Farmers (r. c.)	-	-	-	-	1.000
Service	-0.725	0.690	1.102	0.294	0.388
Others	-0.593	0.679	0.761	0.383	0.507
Monthly income					
<3000 (r. c.)	-	-	-	-	1.000
3001-6000	-0.265	0.265	0.996	0.318	0.767
6001-9000	-0.320	0.293	1.190	0.275	0.726
9000+	-0.606	0.277	4.784	0.029*	0.545
Type of family					
Single family (r.c.)	-	-	-	-	1.000
Joint family	-0.631	0.320	3.884	0.049**	0.532
Number of family member					
<2 (r.c.)	-	-	-	-	1.000
2-4	0.273	0.302	0.816	0.366	1.314
4+	0.327	0.364	0.804	0.370	1.386
Land property					
<25 (r. c.)	-	-	-	-	1.000
25-100	0.733	0.355	4.255	0.039**	2.082
100+	-0.220	0.198	1.229	0.268	0.803
Constant	1.659	1.688	0.966	0.326	5.253

Table 4: Logistic regression estimates for the effect on type of migration with demographic and socio-economic variables

Characteristics	Coefficient (β)	S.E. of estimates(β)	Wald	Significant (β)	Odds ratio
Place of birth					
Urban (r. c.)	-	-	-	-	1.000
Rural	4.071	0.247	272.597	0.000*	58.631
Respondent's age					
<20 (r. c.)	-	-	-	-	1.000
20-25	-1.463	1.661	0.775	0.379	0.232
25+	-0.407	1.587	0.066	0.398	0.666
Religion					
Non-Muslim (r.c.)	-	-	-	-	1.000
Muslim	-0.039	0.308	0.016	0.898	0.961
Children still living					
0 (r. c.)	-	-	-	-	1.000
(1-2)	0.261	0.285	0.841	0.359	1.298
3+	0.186	0.377	0.244	0.622	1.204
Educational level					
Illiterate (r. c.)	-	-	-	-	1.000
Primary	-0.162	1.159	0.020	0.622	0.942
Secondary and above	-0.595	1.075	0.306	0.889	0.600
Occupation					
Farmers (r. c.)	-	-	-	-	1.000
Service	0.543	1.751	0.096	0.756	1.721
Others	0.206	1.748	0.014	0.906	1.229
Monthly income					
<3000 (r. c.)	-	-	-	-	1.000
3001-6000	-0.797	0.436	3.333	0.068**	0.451
6001-9000	-0.575	0.465	1.528	0.216	0.563
9000+	-0.946	0.442	4.585	0.032**	0.388
Type of family					
Single family (r.c.)	-	-	-	-	1.000
Joint family	0.448	0.406	1.214	0.271	0.565
Number of family member					
<2 (r. c.)	-	-	-	-	1.000
2-4	-0.515	0.401	1.654	0.198	0.597
4+	-0.352	0.485	0.526	0.468	0.703
Land property					
<25 (r. c.)	-	-	-	-	1.000
25-100	-0.654	0.575	1.296	0.265	0.520
100+	0.539	0.269	4.016	0.045**	1.715
Constant	0.504	2.460	0.042	0.838	1.656

*Significant at $\rho<0.01$, **Significant at $\rho<0.05$, ***Significant at $\rho<0.10$
Note: r. c. means reference category

CONCLUSIONS

The logistic regression analysis suggested that place of birth, educational qualification, type of family and monthly incomes have been found to be the significant influence on causes of migration. As compared to the illiterate migrant's, the risk of in-migration is lower times for migrant's whose completed primary, secondary and above level of education. The risk of in-migration is significantly higher for the migrants having job and others occupation than farmers. The risk of in-migration is higher for the migrants with land property more than 100 decimal and it increased sharply with the increased number of migrants.

This study may help the planners and demographers for implanting and extending the urban development programme, as it gives an overview of the people involved in urban in-migration process and identifies the root causes of migration. Further proper urban planning can be designed since this study also provides idea about the migration intentions and directions.

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