

## **DETERMINANTS OF SOCIO-DEMOGRAPHIC CHARACTERISTICS ON FEMALE MIGRANTS: LOGISTIC REGRESSION MODEL APPROACH**

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**ABSTRACT:** Migration has contributed to the alleviation of poverty. It is an important factor to change the size of population of a region or a country as well as to boost the socioeconomic status of the people. The aim of this study is to identify the effects of socio-economic and demographic characteristics of migrants. The data of this study was collected by purposive sampling and interview method in Chapai-Nawabganj pourasava, Bangladesh. The logistic regression model has been used to recognize the determinants of female migrants. In this study, it was found that rural to urban migration is dominated by females, a pattern very common in age at marriage. Most of the female migrants are migrated due to marriage and they are migrated to urban areas because of searching better facilities and others opportunities.

**Keywords:** Socio-economic and demographic variables of female migrants, Chi-square test, Logistic regression model, Bangladesh.

### **1. INTRODUCTION**

Bangladesh, situated in South Asia, is the eight most population country in the world. In 2001, its total population stood at 130 million (BBS, 2003). In 2000, there were approximately 988,000 migrants living in Bangladesh. The net migration rate was  $-0.5$  per 1,000 populations. According to the population census 2001 (BBS, 2003), of the total population, 28,605,200 live in urban areas and 95,245,920 live in rural areas. In 2001, the percentage of urban and rural population is 23.1% and 76.9% respectively.

Rural to urban migration in Bangladesh is the key factors of urbanization. As a result, the number of internal migration is increasing in urban areas that are alarming rate and they are facing hazardous situation to survive. It is mainly rural to urban migration which leads to urban growth and the difference in rate of rural population growth and urban population growth leads to urbanization (i.e. per cent of national population living in urban areas). The urban growth rate is dominated mainly by rural-urban migration and it contributes between three-fifths to two-thirds of this growth (UN, 1993). 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).

People migrated to cities and towns because they are attracted by livelihood opportunities. Studies on migration have established a positive association between levels of infrastructural development of a region and the magnitude of out-migration (CUS, 1990). On the other hand, a considerable number of the population migrates to urban areas from villages for higher/better education, employment and investment opportunities as well as receiving technological advancement.

Migration studies in different regions of developing countries have generally dealt with the economic aspects of migration. However, majority studies have dealt with the differentials and determinants of migration focusing mainly on causes and consequences of migration.

Migration in general and rural to urban migration in particular is the process of rebalancing economic resources (human and physical ones) in order to set up a new stage of economic development. Rural to urban migration has been an important determinant of the urbanization process that all third world countries experiencing since the middle of last century. Although there is no agreement on the estimates on the intensity of rural migration flows to urban sites, there is consensus on their large importance during the 1950's and 1960's and their declining role on the urban population growth rate thereafter (Flórez, 2002).

The migration decision of an individual is influenced by marital status. It is observed that the distance moved by a migrant is found closely associated with the marital status, and depends to some extent on his/her responsibilities towards the family. Singh (1985) reported that married persons usually migrate shorter distances in order to visit his family frequently. Some studies have also reported that highly educated married migrants are mostly accompanied by family members, as compared to less educated or illiterate migrants (Sharma, 1984; Singh and Yadava, 1981a, 1981b). Comparatively less information is available on migration differentials by marital status.

Islam *et al.* (2007) observed that people migrate to certain places due to economic reasons and migration can alter the lifestyle of individuals and families. People migrate to new places with the hope of improving their social and economic status. Afsar (1995) shows that rural-urban migration is predominantly a part of family based poverty alleviation strategy in Bangladesh.

The importance of this study is to get an idea about what type of people involved in the process of migration. The objective of this paper is to inspect the determinants of female migration for stream of migration and causes of migration.

## 2. MATERIALS AND METHODS

The data for this study has been collected from Chapai-Nawabganj Poursava of Chapai-Nawabganj district in Bangladesh. A purposive sampling technique and direct interview method were applied to obtain the data of sample size 750 by using a set of questionnaire in January, 2007.

Chi-square test is employed in this study to see the association. Logistic regression model (Cox, 1958) has been used in this study in which stream of migration and causes of migration are considered as dependent variables. The dependent variables of this model are classified in the following way:

$$Y = \text{stream of migration} = \begin{cases} 1, & \text{if rural to urban migration} \\ 0, & \text{otherwise} \end{cases}$$

and

$$Y = \text{Causes of migration} = \begin{cases} 1, & \text{if migration is occurred due to marriage} \\ 0, & \text{otherwise} \end{cases}$$

The explanatory variables are used in these models are mentioned in the respective tables.

## 3. RESULTS AND DISCUSSION

### 3.1 Socio-Economic and Demographic Characteristics of Migrants

Distribution of female migrants based on socio-economic and demographic characteristics is demonstrated in Table 1. Table 1 shows that maximum number of migrants (56.5%) has born in urban area. It also shows that 92.8% migrants has age more than 25 years and 0.7% migrants belong to the age under 20 years. It is also found that 52% migrant's age at marriage is less than 18 years. It is noticed that 98.5% migrants are married and only 1.5% are other. It is also indicated that 89.3% and 10.7% migrants are Muslim and Non-Muslim respectively. The respondents are reported that 48.9% migrants have been completed secondary education and only 18.3% have primary education. It is recognized that 80.4% migrants are housewives and 11.5% migrants have been involved in service and the rest of being is other category. Table 1 also shows that 37.7% migrants have monthly income below TK. 1000 and 10.1% have income TK. 3001-5000. Most of migrants 82.7% and 17.3% have been living with single and joint family whereas 80.4% and 1.1% migrants have been living with 0-4 and more than 5 family members respectively.

**Table 1**  
**Distributions of Female Migrants Based on Socio-Economic and Demographic Characteristics**

<i>Name of variables</i>	<i>Categories</i>	<i>Number of migrants</i>	<i>Percentage (%)</i>
Place of birth	Urban	424	56.5
	Rural	326	43.5
Respondent's age	<20	5	0.7
	20-25	49	6.5
	25+	696	92.8
Respondent's age at marriage	<18	390	52.0
	18 and above	360	48.0
Religion	Muslims	670	89.3
	Non-Muslim	80	10.7
Marital status	Married	739	98.5
	Widowed	11	1.5
Educational level	Primary	137	18.3
	Secondary	367	48.9
	Higher Secondary and above	246	32.8
Occupation	Housewife	603	80.4
	Service	86	11.5
	Others	61	8.1
Monthly income	<1000	283	37.7
	1001-3000	262	34.9
	3001-5000	76	10.1
	5000+	129	17.2
Type of family	Single family	620	82.7
	Joint family	130	17.3
Number of family member	<4	603	80.4
	4-5	139	18.5
	5+	8	1.1

### **3.2 Association of Stream of Migration and Causes of Migration between Background Characteristics of Female Migrants**

Chi-square test in this study is employed to find out the relation between stream of migration and background characteristics for female migrants and the results are presented in Table 2. It is found that place of birth, age at marriage, marital status, monthly income and type of family are statistically significant with stream of migration. On the other hand, remaining variables are statistically insignificant with stream of migration.

In case of causes of migration for female migrant place of birth, age at marriage, education, occupation, monthly income, marital status, religion and type of family have significant effect but age and number of family member have insignificant effect.

**Table 2**  
**Association between Stream of Migration and Causes of Migration with Background Characteristics**

<i>Characteristics</i>	<i>Stream of migration</i>		<i>Causes of migration</i>	
	<i>Chi-square value</i>	<i>Significant Level</i>	<i>Chi-square value</i>	<i>Significant Level</i>
Place of birth	138.277	Significant	21.821	Significant
Age	3.516	Insignificant	5.940	Insignificant
Age at marriage	2.137	Significant	6.377	Significant
Number of family member	4.156	Insignificant	1.416	Insignificant
Educational level	0.676	Insignificant	23.693	Significant
Occupation	0.173	Insignificant	151.081	Significant
Monthly income	6.824	Significant	45.478	Significant
Marital status	3.415	Significant	9.317	Significant
Type of family	48.040	Significant	8.896	Significant
Religion	0.076	Insignificant	3.185	Significant

### 3.3 Determinants of Migrants

The results of logistic regression analysis have been shown in Table 3. Logistic regression procedure indicates that place of birth is an important factor for migration. Place of birth has highly significant at 1% level among all the socio-economic and demographic variables. It is indicated that the risk of migration is 9.520 times higher than that of urban area. Age at marriage of female migrants has estimated regression coefficients have positively effected on migration. The risks of migration who have age 18 years and above have 2.314 times higher than that of who have age under 18 years.

Marital status is the main factor of migration for female migrants. The risk of migration for widowed is 0.148 times lower than that of married migrants. Maximum female migrants are migrated due to marriage, which is consequence on internal migration. The regression coefficients of income pattern for female migrants have positive consequences on migration. The risks of migration for monthly income belong to the range TK. (1001-3000), TK. (3001-5000) and TK. 5000+ are 1.283, 1.057 and 1.760 times higher than that of monthly income under TK. 1000 respectively. It is found that the type of family have highly significant at 1% level on migration. It is indicated that the risk of migration for joint family has 9.93 times higher risk than that

**Table 3**  
**Logistic Regression Estimates for the Effect on Type of Migration and Causes of Migration for Female with Demographic and Socio-Economic Variables**

<i>Characteristics</i>	<i>Stream of migration</i>			<i>Causes of migration</i>		
	<i>Coefficient (β)</i>	<i>Significant (ρ)</i>	<i>Odds ratio</i>	<i>Coefficient (β)</i>	<i>Significant (ρ)</i>	<i>Odds ratio</i>
<b>Place of birth:</b>						
Urban	–	–	1.000	–	–	1.000
Rural	2.253	.000*	9.520	–1.277	0.000*	0.279
<b>Respondent's age:</b>						
<20	–	–	1.000	–	–	1.000
20-25	0.169	.902	1.184	–4.108	0.659	0.016
25+	0.929	.486	2.532	–4.752	0.609	0.009
<b>Age at marriage:</b>						
<18	–	1.000	–	–	1.000	
18+	0.839	.000*	2.314	–0.805	0.001*	0.447
<b>Religion:</b>						
Muslims	–	–	1.000	–	–	1.000
Non-Muslims	–0.071	–.797	1.074	–1.086	–0.000*	0.338
<b>Marital status:</b>						
Married	–	–	1.000	–	–	1.000
Widowed	–1.909	–.037**	0.148	–2.548	–0.000*	0.078
<b>Educational level:</b>						
Primary	–	–	1.000	–	–	1.000
Secondary	0.076	.767	1.079	–0.551	0.109	0.576
Higher secondary and above	0.162	.561	1.176	–0.767	0.033**	0.464
<b>Occupation:</b>						
Housewife	–	–	1.000	–	–	1.000
Service	–.020	.955	0.980	–3.425	0.000*	0.033
Others	–.051	.876	0.950	–2.065	0.000*	0.127
<b>Monthly Income:</b>						
<1000	–	–	1.000	–	–	1.000
1001-3000	0.249	.227	1.283	–0.224	0.369	0.799
3001-5000	0.055	.868	1.057	0.194	0.637	1.214
5000+	0.565	.064***	1.760	–0.142	0.683	0.868
<b>Type of family:</b>						
Single family	–	–	–	–	–	1.000
Joint family	–2.233	–.000*	9.330	–0.940	–0.001*	0.391
<b>Number of family member:</b>						
<4	–	–	1.000	–	–	1.000
4-5	–1.037	.000*	.355	0.200	0.483	1.221
5+	–2.729	.006*	.065	0.366	0.713	1.442
Constant	–2.423	.075***	.089	7.839	0.400	2536.521

of single family. It is clear that among the number of family member have negatively effected on migration. The risk of migration for the number of family member (4-5) and 5+ are 0.355 and 0.065 times lower than that of the number of family member <4.

Logistic regression procedure indicates that place of birth is an important factor for causes of migration. The estimated regression coefficient for rural area is -1.277 that means rural area have negative effects on causes of migration and odds ratio of rural area is 0.279. It is indicated that the risk of migration is 27.9% lower than that of urban area. From the Table 3, it is evident that the causes of migration for attained age (20-25) years and 25+ years are .016 and .009 times lower risk of migration than that of attained age under 20 years. The risky of migration for attained age at marriage 18 years and above have 0.447 times lower than that of the age at marriage less than 18 years. The odds ratios for Non-Muslim migrants have 0.338 (33.8%) times lowered risky of migration than that of Muslim migrants. Marital status is the main factor of migration for female migrants. The risk of migration for widowed is 0.338 times lower than that of married migrants. Maximum female migrants have migrated due to marriage, which is effected on internal migration. An increased risk of migration for female migrants has been observed with the increase level of education. The risks of migration for secondary education and higher secondary & above are 0.576 and 0.464 times lower than that of primary level of education. Occupation for female migrants has significant effect on migration. The odds ratio for services and others group are 0.033 and 0.127 times lower risk of migration than that of housewife. The risk of migration for monthly income belong to the range TK. (1001-3000) and TK. 5000+ are 0.799 and 0.838 respectively times lower and TK. (3001-5000) is 1.214 times higher than that of monthly income under TK.1000. It is indicated that the risk of migration for joint family has 39.1% times lower than that of single family. The regression coefficient for the number of family member (4-5) and 5+ are 0.200 and 0.366 respectively.

#### 4. CONCLUSION AND RECOMMENDATIONS

The logistic regression analysis suggested that place of birth, age at marriage, marital status, monthly income and type of family have been originate to be the significant influence on type of migration for female. In this study marital status is the main factor for female migration. Female migrants who have secondary and higher secondary education have high tendency to migrate in urban area. On the other hand, place of birth, age at marriage, educational level, occupation have significant influence on causes of migration for female migrants.

The following policies are suggested in the present study:

- (i) People in all areas should have environment to work without having any fear in mind, which reduces rural to urban migration and displacement. Besides, national government should adopt decentralized policies and programmers to create employment opportunities in the rural area to reduce unemployment.

- (ii) Civil society and the media need to play a more proactive role and provide a more positive and balanced discussion around female migration.

Further suitable urban planning can be premeditated since this study also provides plan about the migration intentions and information.

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