DETERMINANTS OF INTERNAL MIGRATION IN PAKISTAN

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Abstract

The migration is a dynamic process and it effects the growth of economy. The process of migration may happen due to number of reasons and factors. The migration may be internal and external. The present study investigates and explains the factors responsible for migration in Pakistan. This study is limited to explain the internal migration in Pakistan and concludes that female education is a significant determinant of the internal migration. The study uses the data from Labour Force Survey 2010-11. Data is statistically analyzed on the basis of distribution of migrants by their characteristics and on the basis of migration reasons. It captures the impact of age, education and other factors on the migration process. The determinants of migration are estimated with the help of logistic regression model. Here dependent variable of migration model is dichotomous. Therefore, logistic regression model is formulated to know the impact of female education and other factors on internal migration in Pakistan. The positive and significant effect of education on migration for both males and females is found and it proves that migration is a human capital investment.

Key words: Migration, Female Education and Logistic Model

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Introduction

It is acceptable and persistent phenomenon that there is rapid growth of cities in most of developing countries, like Pakistan due to educational and health facilities in the established cities. The degree of urbanization might be realized by exploring the fact that population of twenty extra-large cities has crossed over ten million

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during the year 2011. All these cities are located in developing countries expect three of them are in the developed countries. The main reasons for the expansion of urban areas in these countries might be due to high population growth rate and increasing migration from rural to urban areas. Karim and Nasar (2003) state that the volume of life time internal migration in Pakistan has increased almost six times during the period from 1951 to 1998. It is almost two fold as compared to the population of the country in same time period.

The increasing rate of rural to urban migration over the time in Pakistan reflect the urban bias government polices along with lack of planning and implementation of rural development programs and schemes in the country. Therefore, knowledge of internal migration will be helpful to know the distribution and structure of population in the country. It will provide meaningful future urban planning in the country as migration has vast socio-economic impact upon habitants of the country. This structure of population is also subjective to the characteristics of the sending and receiving places in term of push and pull factor resulting in; from rural to urban, from urban to urban, from rural to rural, and from rural to urban migration. The migration is mainly of two types with respect to boarder of the country: national and international migration (internal and external migration). Many factors are responsible for these types of migration.

Some important push and pull factors of migration are discovered from literature. The pull and push factors of migration are mainly: (i) The differences in social, political and caste system in the country. (ii) Reduction of employment opportunities in rural areas due to heavy mechanization. (iii) The decreasing per capita share of the labour in the agriculture and availability of limited agriculture land in the rural areas. (iv) Occurrence of technological changes in the country, timber or other resources and enclosure of industries in certain areas in the country. (v) Better economic condition, higher wages, better basic facilities like sanitation, transportations and advance communication skills in urban areas. (vi) Better educational opportunities, better standard of life, freedom of marriages, better security situations in the modern societies. And (vii) Better facilities of health and recreation for people through every walk of life (Datta, 1998, 2002; Solimano, 2002). (Borjas, 2001) attached a high value to friends and relatives living at a place where the migrant want to move because net work of friends and members of family is a major source to support the migrant.

Individuals usually migrate from one area to another to take the advantages of better economic opportunities. Mayda (2007) explained the effect of average income and income differential between the origin and place of destination of the migrant upon its

decision of migration. The increasing migration has multifaceted results and hence there is a need of better and timely policies by policy makers to overcome the pressure builds on infra structures of large urban centers due to heavy migration in the country. With analyzing the patterns and determinants of migration, the consequences or results of migration could be explained. Internal migration redistributes the population within a country, from rural to urban or urban to rural areas.

As the migration process is much diversified and it has vast socio economic and environmental impacts, the present study is limited to find out the determinants of internal migration in Pakistan. The object of study is to supplement the existing literature on internal migration in Pakistan during the period from 2010 to 2011. The process of internal migration is analyzed at two levels in this study. The profile and pattern of migration is analyzed at first level and the decision to migrate is found out at the second phase. A brief review of literature about the study is provided in section 2, followed by the data and methodology in section 3. The statistical and empirical estimation is given in section 4 whereas the conclusion of the study is given in section 5.

Literature Review

The research in a scientific way on the topic of migration and its determinants mainly started in nineteenth century. Now in present much research and literature is dedicated on the different aspects and topics of migration. It explains the determinants and reasons of migration; and also its vast impacts up socio-economic, geo-political and demographic structure of families and societies in regions of the world. Generally, migration models aimed to explain the previous trends and forecast possible migration patterns in future. The topic of migration is being a composite occurrence. Therefore, it involves the different areas of sciences including demography, sociology, economics, geography and others. Sjaastad (1962) provided a theoretical framework of migration behavior and established that migration was influenced by age, market structures, resource mobility, and policies of state.

The rural urban migration is effected by unemployment rate and differences in expected earning between origin and destination. Therefore, people migrate from rural areas to urban areas to have better jobs in cities (Todaro 1969). Irfan et. al (1983) studied the internal and external patterns of migration in Pakistan and found that distance was a important determinant of internal migration. Moreover, the direction of migration was from rural to urban in Pakistan. Irfan (1986) explained the

linkages among migration, economic growth and development in the country. The study analyzed the relationship between migration and fertility, impact of human resource flows of migrants and their incomes in the form of remittances due to internal migration upon income distribution in the country. The main findings of the study set up a higher propensity to migrate among females because of marriages. The inverted U- shaped age – mobility curve was tested for migrants at the age of 15-24 years.

Ahmad and Sirageldin (1993) outlined the internal migration behavior in Pakistan using theoretical framework of human capital investment with PLMS data. It was concluded that people having college or university degree have probablity to migrate. The people belonging to the professional or skilled worker occupation show higher migration trends. It was found that commitment to place of residence has negative impact on migration. The land, house ownership and presence of school going children were included in the variable of commitment to place of residence. Ahmad and Sirageldin (1994) explained the impact of migration on incomes of the internal migrants in Pakistan. The data was used from Population, Labor Force and Migration Survey of 1979-80. The results showed that income of migrants increased over the time that spent more time relatively as compared to who spent less time after migration.

Khan and Shehnaz (2000) studied the decision of migration by using the labor force survey. It was found that migration is urban to urban direction rather than rural to urban. The distribution of population was among medium sized urban centers. Khatak (2004) used the census of 1998 to find the pattern of migration in province of KPK, Pakistan. It was concluded that majority of people migrated to KPK from other areas of KPK within the province and these were young. The migration was based upon non-economic reasons including with family or spouse. Memon (2005) used Labour Force Survey and Pakistan Household Integrated Survey to carry out study on internal migration in Pakistan. It was found that province of Punjab was the main source of internal migration and net inflow of internal migration was only in the province of Sindh.

Data and Methodology

The data for the empirical part of study is obtained from Labor Force Survey (2010-11) collected by Federal Bureau of Statistics. This survey gives information about the active as well as inactive population and about labor force in Pakistan. The survey has a sample size comprises of 36,464 households, nationally representative sample, enumerates in given year.

The questionnaire of LFS is revised along time to keep current with best practices. In the questionnaire of LFS, 2010-11, questions are asked from all persons who are in aged of 10 years and who are above from the age of ten years. The questions are about migration, district of residence before migration, previous region of residence i.e. rural or urban and reasons for migration.

The pattern of migration is analyzed according to main reasons of migration. The reason for migration is grouped into two main categories i-e economic and non-economic migration [Chiswick (1979), Khan and Aliya (1997)]. Economic migration is based upon economic reasons such as job transfer, finding a job, education and business. Non- economic migration is based on the reasons of health, marriages, accompanying parents or return to the origin.

There is a detailed analysis of distribution profile on the basis of reasons for migration by using LFS data. Then the further analysis of the determinants of the migration process in human capital framework is estimated. The view of human capital framework is that migration, training and experience is an investment. Specific to individuals, the investment in human is also having some physical and economic depreciation and deterioration. The decision to migrate is modeled in the logistic model.

Logistic regression and multiple linear regression approach are similar to each other but the difference between these two is that the logistic regression deals with the situation where the dependent variable is categorical, means it takes into account only two values of 0 and 1. In logistic regression, independent variables are mixture of categorical and numerical variables. Logistic regression equation or function uses a maximum likelihood method rather than ordinary least square method. Given the regression coefficient, the maximum likelihood method maximizes the probability that the observed data is classified into the appropriate category. Like ordinary regression, logistic regression has also some assumptions like dependent variable must have two categories or must be dichotomous; categories should be mutually exclusive and exhaustive; sample size must be large, above 50 values per case because maximum likelihood coefficients are large sample estimates. The form of logistic regression equation is: Log $[p(x)]$ = log $[p(x)/ 1-p(x)]$; Where p = the probability that a case lies in a particular category and 1-p = the probability that a case does not lie in a particular category.

The determinants of migration are represented by a set of explanatory variables, in terms of the costs and returns to migration. These variables consist of the

standard human capital variables representing age in years (AGE), education in terms of years of schooling completed (EDUC) and technical/vocational training attained (TECHVOC). Other variables are those representing marital status (MARTSTAT), variables that represent the position in the family in terms of head of household or other household member (HHEAD). The specific model for the male or female sample is written as:

MIG=f[AGE,EDUC,TECHVOC,MARSTAT,HHEAD]
These variables are further divided into categories according to data.

Statistical and Empirical Estimation

The data from labour force survey 2010-2011 is used in this study to estimate the determinants of internal migration Pakistan. The sample used in the study consists upon 185532 individuals including males and females population aged ten years and above. Out of this sample, 90068 (48.54%) individuals are females and 95464 (51.46%) are males. Among them 19111 are migrants and 166421 individuals are non-migrants.

Table 1: Incidence of Migration by Sex and Migration Status

	Male	Female	Total
Migrants	8614	10497	19111
Non-Migrants	86850	79571	166421
Total	95464	90068	185532

Source: Calculated from Labour Force Survey (2010-11).

It explains that 10.30 per cent individuals are migrants and 89.70 per cent individuals are non-migrants. The further analysis of migrants by sex shows that sample consist of more female (54.9 per cent) migrant than male (45.1 per cent). These results are provided in table 1.

The distribution of population of age ten and above is provided in table 2. It explains that only 10.30 per cent people are migrants and other 89.70 per cent are the non-migrants. The analysis of migrants on the basis of their previous place of residence shows that majority of them was living in rural areas before migration. 51.95 per cent individuals are those who migrated from rural areas while 39.9 per cent are the migrants who are migrated from urban areas.

Table 2: Direction and Status of Migration

	Total	Percentage
Migrants	19111	10.30
Non-migrants	166421	89.70
Rural	9929	51.95
Urban	7637	39.96

Source: Calculated from Labour Force Survey (2010-11).

It explains the pattern and direction of migration and this direction of migration is found from rural to urban areas. The description of this pattern of migration is provided in table 2.

Table 3: Distribution of Migrants by Sex and Reason

	Economic	Non-economic	Total
Male	3023 (35)	5591 (65)	8614
Female	206 (2)	10291(98)	10497
Total	3229 (17)	15882 (83)	19111

Source: Calculated from Labour Force Survey (2010-11). Note that figures in brackets shows the percentages.

Distribution of migrants if further analyzed on the basis of migration, the results show that the major reason for migration in both male and females is non-economic. The economic reasons for migration are search for a new job, job transfer, education and business while non- economic reasons are like marriages, migration with spouse or with parents, health and others. The results of such type of analysis are provided in table 3. The results show that overall 83.10 per cent people migrate due to non- economic reasons. 64.90 per cent male migration is based upon non-economic reasons whereas 98.00 per cent females migrate due to non- economic reasons.

Table 4 explains the distribution of migration by sex and attaches reasons for migration in case of male and female. It shows that marriages, migration with parents and others are the major reasons for female to migrate; whereas migration with parents and return home are the main reasons of migration for male members. These all reasons are considered as non economic reasons of migration.

Table 4: Distribution of Migration by Sex with Reason

	Male	Female	Total
Job Transfer	439	37	476
Job Research	1915	57	1972
Agri Land Research	186	18	204
Education	183	65	248
Business	300	29	329
Health	10	01	11
Marriage	181	5531	5712
With Parents	2899	1792	4691
With Spouse	90	2320	2410
With Son/Daughter	71	168	239
Return to Home	1746	105	1851
Others	594	374	968

Source: Calculated from Labour Force Survey (2010-11).

In human capital framework, the factors responsible for migration or migration determinants are analyzed by using logistic model. In logistic model, the decision to migrate is a dichotomous variable and it describes status of the person as migrants and non-migrants. The pooled sample consist of 185532 males and female of age 10 years and above, out of which 90068 (48.54%) are females and 95464 (51.46%) are males. Estimated logistic model shows the results for male sample of 95464 comprising of 86850 non-migrants and 8614 as migrants and results of the estimated logistic model for female sample of 90068 comprising of 79571 (88.34%) non-migrants and 10471 (11.65%) migrants. These results are given table 5.

Table 5: Estimated Coefficients of Male and Female Sample

Variables	Female	Male
Intercept	-7.03	-6.83
AGE	1.36*	0.98*
EDU	1.05*	0.58*
TEC VOC	0.89	0.74*
MARSTAT	0.77*	-0.98*
HHEAD	0.32	0.23*

*Significant at 0.05; Chi-square for male: 109092.09 & Sample size for male: 95464; Chi-square for female: 60097.53 & Sample size for female: 90068

AGE variable coefficient shows that probability of migration increases with age for males and females. The technical and vocational training variable TECH indicates that possession of this type of training increase the probability of migration

for both males and females. This variable changes its significance when education variable is divided into categories.

The variable of education (EDU) shows a significant positive effect on probability of migration for females. In case of males it also shows significant positive effect on migration. The coefficient of education shows that there is greater and stronger magnitude for migration in case of females as compare to males. The coefficient of marital status MARTSTAT variable is negatively significant in case of males and positively significant in case of females. These results are in line with the results of distribution of male and female migrants according to reasons of migration. It is mentioned that majority of females migrate due to marriages. Therefore, probability of a married female to migrate is greater than an unmarried female.

The household head variable HHEAD represents the position of a family that whether person is the head of household. The coefficient of this variable is significant and positive for males; and positive but insignificant for female. It explains that being a household head increases the probability of migration for male head as compare to female head.

Conclusion

The study investigates the process of internal migration in Pakistan utilizing the labour force survey data 2010-2011. This survey shows that the migrant are mostly comprises of males and females who migrate for non-economic reasons. The analysis of migrants also shows that most of the migrants before migration were residing in rural areas. Further migrants are grouped into economic and non-economic migrants for the analysis that whether the decision of migration is a rational keeping in view of expectations of economic rewards in destination. It is in consistent with most of the studies that migrants in large number move from rural areas to urban areas for sake of more facilities in the urban areas. The positive and significant effect of education on migration for both males and females proves that migration is a human capital investment. The female education is also found an important determinant of migration. The process of migration contributes much in the growth and efficiency of the resources in the economy. Therefore, female education is suggested for policy implication.

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