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Migration of Skilled Professionals from Developing Countries: Study of India

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Abstract

This paper is focused on the socio-economic analysis on skilled labour migration from India to Unites states and its impact on India. To complete this aim, research design were made that enables to come up with solutions to the problem encountered during the research. The analysis in this work is based on primary data obtained from samples of qualified (skilled) migrants of India. The findings from this study suggest that the skilled labour migration does make contributions to the development of India in terms of human capital; the most important contributions were in technology transfer, remittances, entrepreneurship, philanthropy and social networking.

Keywords: International migration, remittances, brain-drain, socio-economic analysis, diaspora

1. Introduction

Skilled labour migration from a relatively less developed country to a relatively more developed country may in the present times be described either as 'brain drain' on end of the universe of discourse, or as 'globalization of human capital', on the other. Elsewhere, the description 'migration of knowledge workers' in place of 'brain drain' has been used to distinguish the movement of skilled workers from that of the service workers' the unskilled or semi skilled workers who form the counterpart 'brawn' as they were sometimes described in the earlier literature on brain drain (Khadria 1999). But, to avoid any possible confusion arising from variable terminology, one can justifiably stick to the conventional terminology of 'brain drain' whenever a reference is made to the general issue of skilled labour migration, comprising all categories of qualified and experienced personnel.

Historical record shows that the migration of skilled professionals has long been a concern for many developing countries. With globalization on the rise and international migration unlikely to subside in the near future (Lowell and Findlay, 2002; McCornik and Wahba, 2000; Morgan, 2001), emigrant-sending countries are faced with brain-drain effects (Bhagwati and Hamada, 1974, 1982; Beine et. al., 2002). However there are new models that critiques the brain drain model (Agunias and Newland, 2007; Saxenian 2002; Kapur and McHale,2005) and propose that skilled labour migration can also be thought of as brain g ain or brain exchange. Some economists and social scientist also presented (Ratha,2005; Humberto, Pablo and Pablo, 2007; Docquier and Rapoport, 2005; Singh and Hari, 2011) the economical benefits, called as remittances, through these migrants.

This study is, therefore, concerned with learning it and how the skilled professionals contribute to the development of India. We hope that knowledge gained from this study would provide policy insights both for source as well as host countries.

2. Research Methodology

The purpose of the study is mainly descriptive. It has four research questions:

RQ1. To study the socio-economic impact of highly skilled workers migration.

RQ2. To find out the factors which motivated the migrants to move?

RQ3. To analyze the factors attracting or repelling migrants.
RQ4. To suggest possible recommendations to the government to formulate policy to address the problem of migrants and their families left behind.

The questionnaire is prepared online using *Google docs, Inc*. and circulated mainly through the internet network. To spread the questionnaire among skilled labour migrants we decided to employ an online *snowball technique* (respondents often identified other friends/potential respondents) and the visibility of the questionnaire, openly posted on the net. As the target were in fact the skilled labours (mainly IT professionals and researchers/academicians migrated to U.S), the internet questionnaire distribution represented direct and likely strategy to reach them. The data were collected with the help of these questionnaires during the period between October 2010 and April 2011.

The size of the sample depends on the population size, the population characteristics, the kind of data analysis, time and resources available, and finally accuracy of the sample selection. A large sample size alone does not guarantee a representative sample. A large sample without random sampling or with a poor sampling frame might be less representative than a smaller one with random sampling and a complete sampling frame. The question of sample size can be addressed in two ways: one is to make assumptions about the population, like the degree of variation in the population and the degree of confidence (or number of errors) that is acceptable and then use a statistical equation for the random sampling process. This method was not possible in the present context because information required for it was not available. Sudman (1976) explained that most of the researchers do not use statistical equations for calculating the sample size because of the information required for applying them is not available. Author further stated that a second, more frequently used method is a rule of thumb, a conventional or commonly accepted size. Researchers have used it applies sample sizes close to those of the statistical method. As pointed out by Sudan 1976, an increase in sample size from 50 to 100 would reduce errors from 7.1% to 2,1% but an increase from 1000 to 2000 would only decrease errors from 1.6% to 1.1%. Keeping in view this theory, in present study a sample of 107 respondents is taken for analysis.

3. Data Analysis and Assessment

The quantitative data collected through the questionnaire were entered into the computer using the Statistical Package for Social Sciences (SPSS 14.0 version) in order to obtain simple frequency tables. Statistical techniques such as Descriptive analysis (or Univariate analysis), chi-square test, Pearson correlation, Gamma test, bivariate analysis and multiple linear regression models were used to process the data for examining the study questions.

To decide the statistical tests to be used for analysis, measure of variables which refers, for numeric variables, to the level of measurement of the variable were examined. It distinguishes three: nominal, ordinal and scale variable. "**Nominal**" variables are also known as "categorical variables;" the different codes here refer to different categories that bear no mathematical relation to each other. "**Ordinal**" refers to variables where the numerical codes reflect an ordering of some sort, but where the distance between the categories can vary. "**Scale**" variables include interval and ratio levels of measurement, where any numeric codes have meaning in terms of number relations that go beyond "mere" category and order; if it makes sense to compute an "average" (or mean) score for the variable, then you are probably dealing with a " scale" variable.

The questionnaire sample consists of 107 respondents (80% male and 20% female) who are residing in U.S at present and are skilled labours. The age of respondents varies from below 30 to 60 years. The average age of respondents is 37.41 years. Most respondents are clustered in the range 31-40 years. Most of them are married (90%) and most have two children. Respondents result overall young adults in the growing phase of their career development. The respondents present high level of education, all have a university degree, but there are variations on the level of education reached and on the country where it was obtained.

71% of respondents were doing job in IT sector before leaving India while 75.7% of respondents are doing job in IT sector after migration. This indicates that after migration more number of respondents joined this

sector which also shows that there are more opportunities for skilled labour migrants in IT sector in U.S. The reason of highest number of respondents in IT sector is that, in this research study skilled labour migration is considered from India to U.S and number of migrant working in U.S are IT professionals.

Stay period of almost 45% of the respondents is between 7 to 10 years, followed by 43% who completed less than 6 years in U.S. This indicates that most of the respondents migrated U.S between the years 2001 to 2004. Data also shows that only 5.5% of the respondents spent more than 10 years, however those migrants who completed 15 years are 6.5%. The reason for the trend in the data is attributed to the fact that the opportunities in U.S in IT sector increased during last 10 years. However it may also be possible that skilled labour migrants, who were there for more than 10 years, came back to India for several reasons.

Considering the remittances, the flow of money transmitted to families back home, almost all respondents send money home. The size and amount of the remittances varies according to the income. According to the data shown in table 4.10, about 58% of respondents say that they send 10 to 20% of their income back home to their families. About 32.7% of respondents replied that they send less than 10% of their income. Those respondents who send 20 to 30% or 30 to 40% are only 7.5% and 1% respectively.

In the response of the question 'Are you an entrepreneur'? Almost 96% of the respondents said 'No' while around 5% respondents said 'Yes'. This indicates that most of the respondents who are skilled labour migrants are doing jobs in U.S and very less number are doing entrepreneurship. This also indicates positive sign on the impact of migration because it is easy to switch the job to India as compared to shifting the complete the business in homeland.

Crosstabulation data between occupation of migrants after migration and change in the financial status of their family back home is given in table 1. Chi-square test shoes that the Pearson Chi-square is 0.001 which is less than 0.05, hence it indicates that there is significant relation between the two variables. Also by major source of differences occurs under the IT who has improved change in family's financial status. Table 2 indicates the crosstabulation between savings of respondents who migrated to U.S and change in families' financial position. Chi-square test shows that Pearson Chi-square value is 7.355 and corresponding p-value of 0.600 which is greater than 0.05 ($p > 0.05$), so this test indicates that savings of respondents in U.S is not significant for change in financial position of their families' in home country. Table also reveals that respondent whose saving is between 30 to 40% of their income, their family's financial status gets improved. This indicates that those respondents, who save considerable amount of income, remit good amount of money to their families at home country.

Table 3 shows regression analysis between Age of the respondents and Change in their family's financial status. Model summary table shows that R value is 0.234 which shows the positive relationship between the two variables. ANOVA shows the significance regression value of F to be 0.012 which is less than 0.05 and from the coefficient table it is clear that p-value is also less than 0.05. Both these values confirm the statistical significant association between age of the respondents and change in their family's financial position.

4. Findings

The study shows that majority of respondent's present high level of education and most of them are doing ob in IT sector after migration. Nearly half of the respondents are working in U.S from last 7 to 10 years. Study shows that more than 50% of the respondents migrated to U.S due to "Professional Development". Data reveal that about half of respondents had 200% more income after migration. Half of the respondents said that they have planned to come back to India in near future. These professionals are in the age group of 30 to 40 years. Analysis shows that there is significant relationship between occupation of migrants after migration and change in the financial status of their family in India. It was also observed that those respondents who migrated because of professional development in U.S, their family financial status get considerably improved.

This study also shows that in most of the cases, respondents who are only graduates are earning more money as compared to doctorate migrants. In most of the cases occupation of respondents before and after

return migration remains same. Data reveals that those respondents who are IT professionals had invested considerable amount of money earned in U.S in buying property, household item as well as bonds. The economic impact is not considerable for skilled professionals working in R&D and education sectors.

The findings from this research is that skilled labour migration contributes to the country of origin, the host country and also produces global effects as well. One of the main positive impacts of skilled labour migration is the **transfer of technology**. About half of the respondents working in U.S said that they have planned to come back to India in near future. This shows that a positive indication for India because when these migrants return to India they will contribute in term of technology transfer and also they may have some innovative ideas that may be explored and implemented for the development of India. Responses shows that most of the skilled labour migrants, if come back to India will do the job in company, where there is a possibility that the experience that they have gained in U.S can be explored here in India. Second positive impact of skilled labour migration is **remittance**. According to the findings in this research more than half respondents send considerable amount of their income back home to their families, which show the positive impact of skilled labour migration at micro-level. Research findings shows that almost all respondents send money home through bank transfer, so the money remitted through formal channel further gives positive impact of skilled labour migration at macro-level i.e, to the economy of the country.

Beside economic contribution of diaspora to their home country, their social and political activities have profound effect on the country, which is known as **social remittances**. Other positive effects of skilled labour migration are **Philanthropy** and **Social Networking**. Some diaspora organizations pursue charitable enterprises. Such enterprises range from the donations of single individuals to powerful networks. Many wealthy Indians residing abroad have established private charities on an individual basis and run health or education or public works projects in their home towns or villages. As a result of social networking many multinational companies have opened R&D centers in India largely because of the confidence engendered by the presence of many Indians working in their US operations.

From the responses of skilled labour migrants it was observed that there are several motivational factors for migrating to U.S from India. The reported responses indicate that “Professional Development” was the major reason for migration followed by “earning more money”. Other prime reasons were the “unemployment” and “social networking”

5. Conclusion and Recommendation

The findings from this study suggest that the skilled diaspora does make contributions to the development of India. In terms of human capital, the most important contributions were in technology transfer, remittances, entrepreneurship, philanthropy and social networking. To further increase the positive impact of international remittances on poverty, it would be useful for the international community to:

1. Reduce the high transaction costs of remitting money to developing countries. The present high transaction costs act as a type of regressive tax on international migrants, to send money to homeland.
2. Pay more attention to integrating ‘migration policy’ within the larger global dialogue on economic development and poverty reduction.
3. Improve efforts to collect data on international remittances in developing countries. In particular, better data is needed on the large amounts of remittances flowing through unofficial and informal channels.

In spite of decentralisation in many countries, the potential of remittances to invest in regional development and employment activities has been ignored. Policymakers need to:

1. focus on remittances at the regional planning level, including some of the poorest areas most neglected by central planners.
2. understand why remittance flows often pass through unofficial channels: formal services are often unavailable in remote areas or remitters send money through trusted family and friends to avoid formal interventions or government corruption.

3. provide training and education programmes to help returning migrants make effective investment decisions

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Table 1. Datasheet of Mock-up Test

			Change in families financial position				
			Considerably improved	improved	Almost unchanged	difficult to say	Total
Occupation after migration	IT	Count	17	37	3	24	81
		Expected Count	23.5	31.8	3.8	22.0	81.0
		% within Occupation after migration	21.0%	45.7%	3.7%	29.6%	100.0%
	R&D	Count	0	1	1	0	2
		Expected Count	.6	.8	.1	.5	2.0
		% within Occupation after migration	.0%	50.0%	50.0%	.0%	100.0%
	Academics	Count	9	4	0	4	17
		Expected Count	4.9	6.7	.8	4.6	17.0
		% within Occupation after migration	52.9%	23.5%	.0%	23.5%	100.0%
	Trade & Business	Count	5	0	1	1	7
		Expected Count	2.0	2.7	.3	1.9	7.0
		% within Occupation after migration	71.4%	.0%	14.3%	14.3%	100.0%
Total		Count	31	42	5	29	107
		Expected Count	31.0	42.0	5.0	29.0	107.0
		% within Occupation after migration	29.0%	39.3%	4.7%	27.1%	100.0%

Source: Output of SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	27.190(a)	9	.001
Likelihood Ratio	23.972	9	.004
Linear-by-Linear Association	4.193	1	.041
N of Valid Cases	107		

a 12 cells (75.0%) have expected count less than 5. The minimum expected count is .09.

Source: Output of SPSS

Table 2: Savings in U.S * Change in families financial position Crosstabulation

			Change in families financial position				
			Considerably improved	improved	Almost unchanged	difficult to say	Total
Savings in U.S	less than 20%	Count	0	1	0	0	1
		Expected Count	.3	.4	.0	.3	1.0
		% within Savings in U.S	.0%	100.0%	.0%	.0%	100.0%
	20-30%	Count	8	15	3	14	40
		Expected Count	11.6	15.7	1.9	10.8	40.0
		% within Savings in U.S	20.0%	37.5%	7.5%	35.0%	100.0%
	30-40%	Count	20	21	2	14	57
		Expected Count	16.5	22.4	2.7	15.4	57.0
		% within Savings in U.S	35.1%	36.8%	3.5%	24.6%	100.0%
	Above 40%	Count	3	5	0	1	9
		Expected Count	2.6	3.5	.4	2.4	9.0
		% within Savings in U.S	33.3%	55.6%	.0%	11.1%	100.0%
Total		Count	31	42	5	29	107
		Expected Count	31.0	42.0	5.0	29.0	107.0
		% within Savings in U.S	29.0%	39.3%	4.7%	27.1%	100.0%

Source: Output of SPSS

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.355(a)	9	.600
Likelihood Ratio	8.197	9	.514
Linear-by-Linear Association	3.470	1	.062
N of Valid Cases	107		

a 10 cells (62.5%) have expected count less than 5. The minimum expected count is .05.

Source: Output of SPSS

Table 3: Regression Analysis between Age and change in family's' financial status

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.243(a)	.059	.050	1.12974

a Predictors: (Constant), Age

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.416	1	8.416	6.594	.012(a)
	Residual	134.014	105	1.276		
	Total	142.430	106			

a Predictors: (Constant), Age

b Dependent Variable: Change in families financial position

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.112	.335		9.293	.000
	Age	-.503	.196	-.243	-2.568	.012

a Dependent Variable: Change in families financial position