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Models Proposed by Economists to Analyse the Migration of Skilled Labours from Developing countries like India

[1]Deepti Gupta and [2]Renu Tyagi

[1]462/4, Mandir Marg, BITS, Pilani, Rajasthan, INDIA
[2]Department of Economics, M.M.H College, Ghaziabad, UttarPradesh, INDIA
Corresponding Author: Deepti Gupta

Abstract
The study aims to review the models proposed by various economists to analyse the skilled labour migration from developing countries with special reference to India. In this paper models like brain drain model and those that critiques the brain drain model is presented. It was analysed in this study that remittances are not the only benefits but knowledge, experience and the direct impacts on the enhancement of education and research in the source country are major sources of gain. So, skilled labour migration which was previously considered to be a brain drain is actually working as brain exchange and brain circulation.

Keywords: skilled labour migration, brain drain, labour mobility, Indian diaspora, remittances

INTRODUCTION

Recent years have seen increasing mobility of skilled persons from developing countries to the developed countries, popularly known as the "brain drain", reflecting globalization and associated developments in technology. This migration of skilled labours starts from early 1990s with rapid advances in globalization and phenomenal growth in information and communications technologies (ICT). Since human capital is a social cost and this capital leaves the country when they emigrate to another. It is lost for the country of origin, and gained by the destination country. From the point of view of the country of origin, its earlier investment into the education and training of the emigrant has been a useless spending. What was intended to be an investment turned out to be simple consumption? This loss is obviously highest in case of the highly skilled. The destination country receives the human capital as a gift. It has made a "brain gain", whereas the country of origin has suffered a "brain drain".

India has long been an important player amongst the main suppliers of skilled persons (both professionals and students) to the world market (of labour and education respectively), particularly in the developed countries, and therefore a sending country experiencing the brain-drain. On the other hand when these migrants return back to their home country after spending some years in other country, known as return migrants, bring savings as well as social capital (transnational networks), financial accumulation for investment, transfer of knowledge, market information, and more.

The purpose of this study is to see the present trend and status of skilled labour migration which was previously considered to be a brain drain.

BRAIN DRAIN MODELS

The literature on the brain drain saw explosive growth in the 1970s and has been elegantly surveyed by Jagdish Bhagwati and others. This literature continues to provide a useful framework for analyzing many of the current issues in the migration debate. Bhagwati, (1976) in his article, "The Brain Drain," argues that the most educated persons from India migrate to advance industrialized countries, such as the U.S., in their most productive years creating an exodus of educated citizens. The Indian economy will suffer since scarce resources are spent to educate these individuals; most universities and college are public and heavily subsidized by the government. Therefore emigration of the educated India will almost exclusively have negative impacts on India and this argued to be an important cause of under-development in developing countries.

Bhagwati and Hamada (1974, 1982) show that the emigration of the most skilled labour force generates a tax externality associated with a distortion of the optimal tax system on two levels. On the one hand, knowing that the most skilled agents are better remunerated, government loses in terms of tax income due to its agents' drain, which affects the potential size of revenue redistribution.

In the same way, the investment in terms of education and training represents major costs for developing countries which cannot receive benefits in return since the migration of skilled labour takes place. Blandy (1968) found that migration is multidirectional and complex which is related to political, economic and educational development processes. Two conditions should hold to conclude that brain drain exists. The first condition is when the

migration of highly skilled workers is growing more rapidly than the number of highly skilled labour in the home country. The second is when the difference between these rates of increase is greater than the difference between the rates of increase of migration as a whole and the economically active population as a whole.

According to Beine et al., (2002), during 1980s, the studies on skilled labour migration were more concentrated on the labour market consequences for the sending country, considering the demand side for emigrants as exogenous. In 1990s, the study of brain drain shifted its attention from the pushing factors and negative aspects of skilled migrations from developing countries to the current characters of skilled migrations, being now "demand pull" due to the different immigration policies in the receiving countries and there matching labour market conditions and skill needs.

According to the endogenous growth theory proposed by many authors (Miyagiwa, 1991; Haque and Kim, 1995), the human capital drain is unfavourable to development since the loss in human capital resulting from skilled workers emigration decreases productivity and income per-capita. Miyagiwa (1991) shows that in the presence of increasing outputs from education, the emigration of very skilled workers can decrease the income of workers with intermediate skills whether these latter migrate or not. Thus, the brain drain was identified as a serious problem against which policies had to and could act. Haque and Kim (1995) thought that to address the problem of brain drain, education policy may be the possible solution. Since educated people are more likely to emigrate, in an open economy, then education should focus in primary and secondary levels.

Docquier and Hillel (2004) in their policy research working paper of World Bank focuses on the consequences of skilled migration for developing countries. They had presented new evidence on the magnitude of migration of skilled workers at the international level and then discuss its direct and indirect effects on human capital formation in developing countries by proposing a unified stylized model. Docquier and Abdeslam (2004) in their policy research working paper of World Bank provided new estimates of skilled workers' emigration rates for about 190 countries in 2000 and 170 countries in 1990, in both developing and industrial countries. The authors' database covers 92.7 percent of the Organisation for Economic Co-operation and Development (OECD) immigration stock.

Rappaport (2005) introduced the labour mobility into the neoclassical growth model. He proposed that for a small open economy with capital intensity below its steady-state level, out migration directly contributes to faster income convergence and it also creates a disincentive for gross capital investment. At low relative income levels, the latter disincentive effect tends to dominate so that labour mobility can actually slow the speed of income convergence.

Mishra (2006) proposed the simple economic model of labour demand and supply. Author assessed the quantity of welfare loss that results from labour movement in the presence and absence of external effects. Without taking external effects into consideration, the emigration loss is the surplus resulting from the difference between the cost of employing the workers who migrate and the value of their marginal product. This welfare loss is due to the cost imposed on those who were left behind. Author found that the loss from skilled labour migration is greater with external effects as compared to without external effects.

Freeman (2006) examined that what is known about the causes and consequences of immigration. He argued that people flows are fundamental to creating a global economy and that the interplay among immigration, capital and trade is essential to understanding the way globalization affects economies. He considered the ways to reduce barriers to immigration that could improve the well-being of workers around the world. Fan and Stark (2007) analyzed both the negative and the positive impact of migration by skilled individuals in a unified framework. They proposed that in the short run, international migration can result in 'educated unemployment' and over education in developing countries, as well as a brain drain from these countries. They suggested that the costs of 'educated unemployment' and over education can amount to significant losses for the individuals concerned, which may constitute a substantial proportion of the educated individuals. They also suggested that while the migration of some educated individuals may reduce the social welfare of those who stay behind in the short run, it improves it in the long run.

New Literature That Critiques The Brain Drain Model

The new literature shows that potential net positive effects on human capital accumulation and growth can be associated with human capital migration. Consequently, the unfavourable effect of the exodus of competencies can be reversed. Therefore, the expression "Brain Drain" becomes "Brain Gain". Grubel and Scott (1966) already said that if the human capital migration is a social cost in the short run, it is possible that this cost can, under certain conditions, be largely compensated in the long run through the transfers' potential, and the beneficial impacts emanating from the professional networks gained abroad. There are two ways of carrying out

the 'brain gain': either through the return of migrants to their country of origin (return option), or through their mobilization by associating them remotely to the development of their country of origin (network of experts' option). In this new literature, it is suggested that the brain gain could be associated with the inciting impact created by the migration prospect on the size of human capital formation in an environment of uncertainty.

Moreover, there is some evidence that the prospect of moving abroad stimulates the incentive to study among stay-behinds. Also labour tends to be much more productive in wealthy, industrialized countries. In an increasing number of developing countries there is mass unemployment among the more highly educated. In these cases both individual and collective gains seem to outweigh the costs of migration. Since the beginning of the 1990s a new positive development can be observed in the field of the Indian information technology (IT), which gives India new hope in its fight against poverty and under-development. Although it is still a developing country and worldwide one of the biggest recipients of international development aid, India is one of the most attractive and dynamic development centres of technology products in the world. There is hope that India will become one of the leading nations in the new technology revolution and will benefit from its achievements (Lakshminarayan 1992). The country aims to become one of the worldwide tallest manufacturers and exporters of technology products and a "new global IT super power" of the 21st century. India is expected to play a leading role in the new world economy of the information age, which could open a door for the country to overcome poverty and underdevelopment (UNDP 2001a). Despite the global economic and financial crisis and related pressures on external demand, exports of the software and IT-enabled services exhibited a steady growth of around 15 percent during 2008-2009. India has continued to be ranked first in the exports of computer and information services in the international economy since 2005. The data is given in table-1. According to a recent NASSCOM Report titled "IT-BPO Sector in India-Strategic Review 2010", software export revenues are estimated to be around US$49.7 billion in 2009-10, registering a growth of about of about 7 percent over the previous year, and contributing about 67 percent of the total IT-BPO revenues.

Table 1: Computer and Information Services Exports (US $ billion)*

S.No	Country	2000	2005	2006	2007	2008	2009-10
1	**India**	**6.3**	**22.0**	**29.2**	**37.0**	**48.3**	**49.7**
2	Ireland	7.5	19.6	21.0	26.1	34.2	-
3	Germany	3.8	8.4	9.7	12.2	13.1	-
4	U.K	4.3	11.2	13.0	14.1	12.9	-
5	U.S.A	5.6	7.3	10.3	12.7	12.6	-
6	Finland	0.2	1.5	1.5	1.3	8.2	-
7	Sweden	1.2	2.7	3.6	6.5	7.6	-
8	Israel	4.2	4.5	5.3	5.8	6.9	-
9	Netherland	1.2	3.7	3.9	4.2	6.7	-
10	China	0.4	1.8	3.0	4.3	6.3	-

Source: Balance of Payments Statistics Year Book 2009

In the literature this success is basically explained by (the combination of) two determinants (Heeks, 1996; Bajpai/ Shastri, 1998). On the one hand an economic determinant is supposed: a competitive advantage of the Indian IT economy resulting from the combination of low labour costs (which are approximately a quarter of the US-level) and a high qualification level of the employees (which almost corresponds to that of the USA).

As a second determinant of the economic boom in India the role of policy programs is emphasized (political determinant). Two steps are regarded as essential: Firstly the nomination and political support of the IT sector as one of five key sectors of the Indian national economy since the mid-1980s; and secondly the change of the general Indian economic policy from the so-called self-reliance strategy to an open market economy at the beginning of the 1990s.

Circular Migration

Circular migration, the temporary or permanent return of migrants to their countries of origin, is high on the agenda of many policymakers today. It is seen as offering benefits to countries of migrant origin, which can tap into the skills and resources of returning migrants; to destination countries, which can fill labour market needs without facing the full challenges of immigrant integration; and to migrants themselves, who may take advantage of wider

openings for legal migration. Both countries of origin and destination can profit from the transnational economic ties forged by migrants who keep a foot in both countries (Agunias and Newland, 2007).

Far from being new, the term circular migration has been around for decades. As early as 1982, Graeme Hugo (Hugo, 1982) used "circular migration" to describe the internal migration within Indonesia. The term is used to refer to many different patterns. More recently, however, it is mostly associated with temporary worker programs. Model proposed by Saxenian (2002), on brain circulation argues that those highly skilled migrants from developing countries who have emigrated to an industrialized country represent a potential resource for the socio-economic development of their home country. Migration can be considered a temporary stage for some migrants, who return to the country of origin and bring skills and knowledge learned abroad. Until recently, very few migrants returned back to India of those who had the opportunity to live in the U.S. However, today salaries for IT professionals are rising in India. Classic development economics states that if surplus of educated labour exists then out-migration of that labour will actually increase the productivity and wages of the labour left behind. Salaries for high-tech professionals are quickly rising, giving evidence that the surplus of highly skilled IT labour may not exist as it did in the 1980's, when high technical and financial professionals were making much less than their Indian counterparts who had migrated abroad. Today, the maturing IT sector in India is attracting more NRIs back to India because of business opportunities and growth. Saxenian (2002) proposed an alternative hypothesis by arguing that migration flows do not stop when the migrants move to the receiving country but rather that two-way flow of certain immigrants shows the complex nature of migration. She provides evidence that Indian and Chinese professionals in Silicon Valley have strong social and economic ties with their country of origin. This leads us to believe that immigrants abroad may actually have a positive externality in the economy of origin because of potential increase in productivity, the creation of enterprises and therefore jobs, the accumulation of research and foreign direct investment, which may lead to innovation.

Rates of return migration are typically difficult to calculate in the absence of accurate records. Some estimates include those of Borjas and Brastsberg (1994) who found that about 20% of immigrants re-emigrated out of the United States, and of Glavac (1995) who found that in the period between 1981 and 1990 about 7% of migrants in Australia left the country. Kapur and McHale (2005) discuss a survey of Indians in the U.S where the question "How likely is it that you will ever move back to India permanently?" was asked. 21% responded "very likely", 20% "somewhat likely", 40% "somewhat unlikely", and 26% "very unlikely". Despite these positive responses to the survey National Science Foundation longitudinal data on Ph.D students show that the actual rate of return migration is closer to 5% (Kapur and McHale, 2005).

Remittances

Remittances are defined as the portion of international migrant worker's earnings sent back from the country of employment to the country of origin. (Knerr 1997). Remittances have primarily been studied as money flows resulting from migration and the impact this has had on the economy at the family, local, regional and national levels. Though remittances have been a constant accompaniment of free emigration from India since the early 20th century, they have not been a major focus of attention in the literature of migration, diaspora and globalization The literature on remittances deals with the quantum and source of remittances, their relationship to the GDP and balance of payments, and their general economic characteristics (Adams Jr. 2003, June; Kuptsch and Martin 2004; Reserve Bank of India 2004; World Bank 2004). Community studies trace the impact of remittances on the family and regional economy (Oberai and Singh 1980; Helweg 1983).

The stability of remittance flows gives developing countries the ability to borrow against them (Kuptsch and Martin 2004), though this aspect of remittances was earlier questioned (Nayyar 1994).

Ratha (2005) discussed in detail the economic benefits of foreign remittances. These benefits include the increase in foreign exchange reserves, a positive effect on savings and investment, output growth, and multiplier effects if consumed. Hence, the factors influencing remittances by non-residents and first generation migrants to their home country is of considerable interest to policymakers who want to encourage such remittances. This is especially true in the case of India, which has seen a large outflow of skilled labour to foreign countries, particularly to the United States, over the past decade.

Humberto, Pablo and Pablo (2007) explored the impact of remittances on poverty, education, and health in 11 Latin American countries using nationally representative household surveys.

The main findings of their study are the following: (1) regardless of the counterfactual used remittances appear to lower poverty levels in most recipient countries; (2) yet despite this general tendency, the estimated impacts tend to be modest; and (3) there is significant country heterogeneity in the poverty reduction impact of remittances flows. They explained that while remittances tend to have positive effects on education and health, this impact is often

restricted to specific groups of the population. Docquier and Rapoport (2005) consider seven factors that influence remittances, such as: (i) altruism; (ii) exchange; (iii) strategic motives; (iv) insurance and moral hazard; (v) family loans; (vi) inheritance; and (vii) mixed motives. The factor 'exchange' refers to the notion that remittances buy services such as taking care of a migrant's assets.

Ahmed and Walmsley (2009) examined the potential gains for India from increased temporary migration of skilled worker between India and its major labour importing partners, in light of potential productivity gains from return migration. They observed gains when considering the recent growth of the domestic service sectors-the most high profile being the software and IT sectors. These two sectors have experienced phenomenal growth rates in the past few years. In one of the recent working paper (Singh and Hari, 2011) authors studied the impact of remittances on various macroeconomic and developmental aspects for the Indian economy.

Authors analyzed the data regarding remittances and some of the macroeconomic variables like GDP, private final consumer expenditure, saving, investment, balance of payment, exchange rate, FDI etc for the period 1971-2008.

CONCLUSION

Skilled labour migration takes place and generates consequently higher benefits for individuals, groups and communities for both the source and destination countries. The benefits for the source countries are monetary but also non-monetary as they are expressed under direct and indirect benefits of emigration. Remittances are not the only benefits but knowledge, experience and the direct impacts on the enhancement of education and research in the source country are major sources of gain. This type of skilled labour migration which was previously considered to be a brain drain has been identified as brain exchange and circulation in this research study.

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