

**The Brain Drain Effect:
Socio-economic Effects of Brain Drain on Pakistan's Economy**

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ABSTRACT

This research is an attempt to figure out the multiple socio-economic effects of Brain Drain on Pakistan's economy. Results matched with our assumed effect of brain on variables and revealed the fact that Brain drain has negative effect in the Economic growth, Productivity, Labor force and Political situation of the country whereas it has the one positive effect, that is, increase in foreign exchange reserve due to remittance by the people abroad.

It cannot be said that brain drain is always negative. If employees move abroad on temporary basis then instead of having a negative effect, such expatriate shift will have a positive effect on the social and economical situation of country because they will bring new technology and information to the parent country. But if such migration is permanent then it will have is negative impact on the social and economic development of the country because that country is losing the potential brain which has been developed with huge investment

INTRODUCTION

Brain Drain in the terminology of development economics to loss of high quality manpower. 'Brain Drain' is a contentious subject and the very term has been challenged in recent years, with some preferring more politically neutral terms like 'Brain Exchange' or 'Brain Circulation'. The last decade had seen an increase in the international mobility of highly skilled talented individuals due to "Globalization" Ashfaq et al (2004). It includes the movement of scientists, doctors, educationists, engineers etc. These are people with high skills and specialized knowledge.

The irony of international migration today is that many people who migrate legally from poor countries to richer lands are the ones that the third world countries can least afford to lose. Brain drain not only represents loss of valuable human resources but could also prove to be a serious constraint on the future economic progress of the Third World Nations. Any country makes a huge investment in training and educating each professional which is lost if they then move to another country. "There is a massive net gain to the recipient countries through this hidden transfer of wealth" Kingsland (2005). The 'Brain Drain', as the flow of skilled professionals out of the developing countries, ever since then, thus marks a potentially serious barrier to economic growth, development and poverty reduction.

Like a typical developing country, Pakistan has been facing the challenge of losing its human resources in favor of more prosperous and developed countries. A sizable number of the country's highly qualified and experienced professionals immigrate to the so-called Western and Middle Eastern region for a wide variety of reasons. At best, this phenomenon generates some finical resources in the form of remittances sent these overseas Pakistanis. But at worst, it constantly impoverishes the various types of enterprises, services and sectors that develop and invest in these professional in the from subsidized training/education at different levels.

According to official estimates of Pakistan's Overseas Employment corporation, close to 36,000 professionals, including doctors, engineers and teachers, have migrated to other countries in the last 30 years (Bureau of Immigration and Overseas Employment). Interestingly, this number is indicative of only a small proportion of actual migration, since the majority of emigrants do not register (Writer (2002)). On one hand, increasingly restrictive immigration controls have constrained longer-term labor migration but on the other hand, skilled workers and younger people in particular, have used migration channels such as tourist visas, and students exchanges to secure short-term to developed countries (Williams et al (2004)).

International migration of talented people goes back to the origin of mankind. One of the earliest examples of brain drain was experienced by Europe towards the final stages of Second World War. Fearing persecution, many scientists, intellectuals, engineers, doctors and other highly qualified professionals left had strong political reasons behind it. Interest in this topic subsequently dropped as a combined result of economic recession and limitations in the analysis of the problem. Until early 1990s, "brain drain" was a predominant concept used to frame such discussion. This implies a one-way, definitive and permanent migration of skilled people from developing to industrial countries. More recently, however, the idea has been gaining momentum amongst scholars, decision makers and journalists that policy makers should characterize the issues in terms of a "circulation" of skills and manpower. Certainly the conditions that govern mobility have changed dramatically, in terms of new forms of communication, transportation, geopolitics, intercultural relationships and commerce.

LITERATURE REVIEW

Numerous time studies have been conducted in the developed countries of the world by many researchers like in the United Kingdom (Commander et al, 2003). Theoretical work shows the circumstances under which a developing country can benefit

from skilled migration. Nadeem et al (2004) highlighted that since the majority of migrations move on permanent basis; this not only represents loss of valuable human resources but also could prove to be a serious constraint on the future economic progress of growing and third world countries.

By contrast another study on the flight of human capital and its relations with the growth of developing countries was conducted (Rapoport, 2002). The main conclusion to from that analysis is that for any given developing country, the optical migration rate of its highly education population is likely to be positive, according to Government of Pakistan, Bureau of Emigration and Overseas Employment, reduction unemployment is the objective f the Government. In this direction, emigration is one of the significant and immediate, steps, which may help in eradicating the menace of unemployment.

Wong et al (1999) examines the way through which drain many may effect the growth rate, educations, and income distribution of an economy. It shows that if the engine of growth of economy is human capital accumulation, brain drain hurts the growth rate of the economy. Brain drain also has important income distribution and welfare implications. This paper argues that in addition to the static effects that have analyzed in the existing literature, brain drain adversely affects the inter temporal welfare of the non-migrants in the present and future generations.

Commander et al (2003) proposed that the migration skilled individuals from developing countries has typically been considered to costly for the sending country, due to lost investments in education, high fiscal costs and labor market distortions. The empirical and theatrical work shows under what circumstances a developing country can benefits from skilled migration. It argues that the sectorial aspects of migration and screening of migrants in the receiving country are of major importance in determining the welfare implications of the brain drain.

Markl (2005) suggested that countries must encourage growing talent to move abroad, for learning and understanding the

foreign cultural values, norms, influences, languages and risk being attached to those societies. Gish (1997) draws attentions to the medical brain drain, which has not been all negative for the sending countries such like Pakistan. Many emigrants did return home, often with enhanced skills; in additions, while away, it was common for remittances to be sent back to families. Many individuals and their families do benefits from remittances to be sent back to families. Many individuals and their families do benefits from permanent emigration. The most important factor on the negative side very well have been the encouragement of a medical training system directed more toward the emigration of its product that the needs of the country's population.

Brati et al (2006) intended a substitute way of looking at the brain dilemma. They tried to bring into focus the crucial role of repatriated earnings of expatriates that can prospectively facilitate higher combination of skills and sustain a higher level of skill differentiation in the domestic economy. A situation might also arise where insufficient demand for the skilled people get occurred that economy when it is unable to absorb the same domestically.

Sequin et al, (2006) emphasized that skilled masses emigration or brain drain from one geographical area to another is a major contributing factor for enhancing the economic disparities in the host growing global. Major outcome of drain could be technological developments in the host country, yet inadequately understood, and is particularly interesting given the importance of Science and Technology in improving the human skills and economic development. He also discussed that economically sound nations countries is to is to strengthen international collaboration amongst growing nations and their skilled people and that developed countries should opt for a major part of their international development strategy.

METHODOLOGY

This research study has been conducted in Islamabad due to the reason that the data can easily be accessed here. Due to lack of

any reliable secondary data related to brain drain, we have relied on the primary data that has been collected through a questionnaire. The data used in this research is based on the findings of a survey which was given to the university students and the private and public sector employees. There has been less and virtually no research conducted prior to this one on the topic of the socio-economic effect of the brain drain on the economy of Pakistan.

UNIT OF DISCUSSION

In this study, the unit of discussion is all people of Pakistan, particularly students because this is the sector which is suffering the most from Brain Drain.

HYPOTHESIS STATEMENT

"Pakistan is suffering from Brain Drain which leading to socio-economic disparity in economy"

The variable, that we have selected for our study are:

| Factors Affecting Brain Drain | Positive Effect | Negative Effect |
|-------------------------------|-----------------|-----------------|
| Economic growth | | Negative |
| Productivity | | Negative |
| Foreign Exchange | Positive | |
| Labor Force | | Negative |
| Political situation | | Negative |

SAMPLEING AND DATA COLLECTION

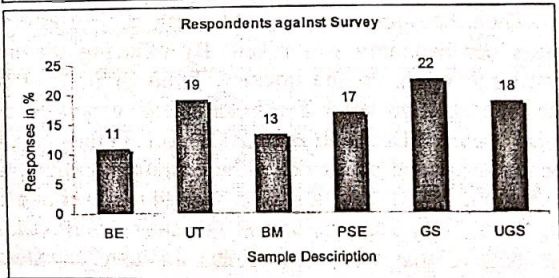
Random Sampling, Survey and Questionnaire

The sample size of our study is based on 22 people. The surveys were randomly distributed amongst the students of 5 universities which includes Mohammad Ali Jinnah University (MAJU), Hamdrad University, Quaid-i-Azam University, Arid Agriculture University Rawalpindi, Air University, and The National University of Modern Languages (NUML). Other than universities, our sample included people related to banking, teaching, and business sector. Trough easy sampling techniques,

questionnaires were distributed by hand amongst graduate and undergraduate students, banking personnel, teachers and business men. The questionnaires were then returned to specific date collectors over a certain time period.

The sample was intended to produce the result regarding current situation of the of the Brain Drain in the economy, the reason behind the movement of the human resource to other developed countries and its effect on the economy of Pakistan. The main purpose of the questionnaire was to get the view of people regarding effect of Brain Drain on the economy of Pakistan. The questionnaire consisted of over twelve questions. Few indirect questions were asked regarding the effect of Brain Drain on this variable. Then to prove this, direct questions in the table were asked to check that Brain Drain has a positive or negative effect, at the end, out of 300, only 222 questionnaires were returned. This response rate is 74% which indicates that people are very much supportive in this regard. No student of employees was given access to each other's responses, for the sake of confidentiality.

| Sample Description | Aerouym | People contacted | Respondents | % Response |
|-------------------------|------------|------------------|-------------|------------|
| Banking employees | <u>BE</u> | 50 | 24 | 11 |
| University teachers | <u>UT</u> | 50 | 42 | 19 |
| Business men | <u>BM</u> | 50 | 29 | 13 |
| Public sector employees | <u>PSE</u> | 50 | 37 | 17 |
| Graduate students | <u>GS</u> | 50 | 49 | 22 |
| Undergraduate students | <u>UGS</u> | 50 | 41 | 18 |
| | | 300 | 222 | |



The highest response was from Universities' graduate, University teachers and undergraduate students and the lowest response was from banking employees.

RESEARCH QUESTIONS

- How aware are you with Brain Drain?
- In your opinion, how strongly Brain Drain has affected our economy?
- In your opinion what is the current trend of Brain Drain in our country?
- What are the reasons behind Brain Drain? (Reasons for Migration)
- If there were no brain drain in Pakistan, what would have been economic condition of Pakistan?
- If there were no Brain Drain in Pakistan, in which particular field Pakistan may have developed?
- How can government stop Brain Drain in Pakistan?
- If you are provided with an opportunity to leave Pakistan for better that will be your option?
- In your opinion what sort of effect does Brain Drain have on the variables that have been selected for the study?
- In your opinion does Brain Drain affect National Productivity?
- Do you think that Brain Drain has any relationship with Politics?
- If "Yes" then do you think that political instability causes Brain Drain?

MAIN FINDINGS AND INTERPRETATION

Before starting our research, it was very important for us to make sure the people who were going to fill the questionnaire were well aware with concept of Brain Drain. The survey results show that most people are aware of this terminology.

Then the opinion regarding the intensity of effect of brain drain on our economy was asked. By reducing the number of educated remaining in the country, brain drain unambiguously reduces the average level of education and generates a loss for those left behind (Docquier et al, 2000). This in turn greatly affects the economy and slows down the economic growth. Our trend of brain drain would serve a severe blow to the overall growth rate (Rahi, 2005). Our analysis shows the same result. Most of the people believe that Brain Drain has an adverse effect on the economy of Pakistan.

As cited earlier, statistical information on this issue is not available. However, there are several peripheral factors that help in understanding the approximate volume of the emigrated individuals. One such factor is the opportunities for traveling. In the middle of 20th Century, travel conditions were relaxed towards the United States and Europe. Thus, aspiring works left the country in sizeable numbers. These emigrants belonged to both skilled and unskilled categories of labor force. Till that time, when traveling opportunities were favorable brain drain continued at a high pace (Shahana, 2005). The same result has been observed from the survey which shows that the majority of the people believe that the Brain Drain trend is increasing over the past few years.

The Overseas Employment Promotion have played a vital role in overseas employment. Trends have been fluctuating during the last three decades. According to an article (Writer, 2002) apart from the loss of skilled manpower, brain drain also negatively affects the local economy, in particular, national salary structures. The from the analysis can also be supported by the statistical data that we have. There has been an increasing trend in the export of manpower from Pakistan during the last 5 years (Government of Pakistan, Bureau of Emigration & Overseas Employment).

| Year | No of Persons | % Increase |
|----------------------|---------------|------------|
| 1999 | 78093 | - |
| 2000 | 107733 | (+)36% |
| 2001 | 127929 | (+) 19% |
| 192002 | 147422 | (+) 15.23% |
| 2003 (up to October) | 184271 | (+) 60.70% |

There are various reasons for the people of Pakistan to go abroad. professional leaving the country mostly search for jobs offering attractive abroad, mainly the United States, UK, Canada, Australia, New Zealand, etc (Rahi,2005). According to a research (Haupt et al, 2004), the costs of international mobility have

significantly declined over the last decades which in their opinion, is the major reason of brain drain in most of the countries. Whereas, our research shows that majority of people agree with the fact that people mostly leave the country to have a secure or stable future, which they cannot ensure by living in a country like Pakistan.

Brain Drain plays a very important role in the economic condition of the country. According to most of the researchers, brain drain has a negative effect on the economy because people, who leave the country, are the ones that a country can least afford to lose. They are the people on which the country has invested a lot of its resources and money. By contrast some researchers (Beine et al, 2003) claim that brain drain has a positive effect on the economy of a country and it further results in the development of the economy. The research whereas shows that there is more negative effect of Brain Drain on the economy of Pakistan because most of the people agree with the fact that had there been no Brain Drain in our economy, then was a chance that our country would have been in the list of the developed counties of the world.

Most of the work regarding Brain Drain is done from the educational sector point of view. Like Haupt et al (2004) & Commander at al (2003) have done work on the brain drain of students from one country to the other countries. The second area is of medical in which research has been written to calculate the number of medical students leaving the country. Our research analysis however shows that most of the people agree with the fact that if there was no Brain Drain then education is the sector that would have benefited the most.

Various studies have suggested various ways to reduce the problem of Brain Drain. According to an article (Rehi,2005), the current increasing trend be arrested only by proper analysis of the framework needed for successful running of academic institutions, identifying areas of weaknesses, and taking suitable steps to strengthen these areas. Four basic ingredients needed for smooth and successful operation of public sector academic institution are faculty, students, infrastructure and administration.

One proposal that has been suggested to offset the repercussions of brain drain is for developing and industrialized countries to consider a tax policy that compensates developing countries for their loss of manpower, while discouraging further emigration of skilled labor (Writer, 2002). This could be done imposing a special income tax on Pakistani and other South Asian professionals working in Northern countries. The result suggestion the same that the government of Pakistan can discourage the trend of Brain Drain by increasing the available job opportunities in the country.

One of the research study (Balaz et al, 2004) examines the balance between temporary and permanent migration and to find out that are these migrants permanently lost to the economy, or will they return, possibly with enhanced human capital. Economic theory provides two contrasting perspectives on this question (Constant et al, 2002). The neoclassical view (Sjastaad, 1962) is that migration and return decision are based on cost on cost benefit evaluations in (Sjastaad, 1962) is that migration and return decision are based on cost benefits evaluation in context of the goals of maximizing anticipated lifetime earning. In the longer term, migrations' skills have greater earning power in destination countries, so they are loss likely to return.

In contrast, Piore (1979) contend that migration results from market failures in the countries of origin. It is also targeted, and migration return once they have achieved their target savings. In practice, of course, the decision to return is contingent on human agency, economic structures and affiliations. When this question was asked the people in our survey, result revealed the fact that most of the people will leave Pakistan for making money but will return to their fact most of the people will leave Pakistan for making money but will return their country once their goals are achieved.

Different researches have given different views regarding the impact of Brain Drain on our economy. According to one group of the researches (Pellegrino,2001) brain drain has a positive effect on the economy and the term has been referred to as "Brain

exchange" or "Brain circulation" but the positive aspects of such human resource migration is only witnessed by the developed countries for a variety of reasons.

In contrast, another group claims that brain drain, in greatly affects the economy and slows down the pace of economic growth. The trend of brain drain would serve blow to the overall growth rate (Rahi, 2005). As our country is a developing one, we are also carrying negative effects of Brain Drain on our economy, and that has been proved with the survey results we have conducted.

Capistrano highlighted that the core of the Brain drain idea lies in the capacity of the professionals to give a high increase in output and productivity. In theory, if a professional leaves, it would seemingly pose a loss of highly productive workers who would be able to generate output through their profession and through their capacity to impart knowledge to younger apprentices thereby increasing their productivity and output. However, another perspective of professional (Wheelan, 2002) leaving the country is that human capital needs matching technology to function properly. Skilled workers would find no satisfaction in their matching technology to function properly. Skilled workers would find no satisfaction in there job in LDCs because lake of capital to by technology frustrates people due to which they move to utilize their full potential. But there certainly are benefits for the people who are leaving or moving and its positive impact be witnessed by only developed countries. Our survey reveals that people believe Brain Drain has a negative effect on the productivity of our economy because all the talent of the country on which investment has been done will leave the country and will eventually benefits other economics.

According to an article (By Tariq), foreign workers' remittances are the second largest sources of foreign exchange earning for our country. Remittances allow families to maintain or increase their expenditure on basic consumption like housing, education and establishing small businesses. A large number of people from the poor section of the society depend on these

remittances for their basic need. Therefore, increasing remittances may reduce poverty.

Remittances have not improved the economic fundamentals of the country only, but have also made banks realize the impotence of quick-delivery mechanism and thus they started offering better facilities and all this combined to boot the socio-economic condition of the economy.

Although these payments are a significant source of foreign exchange for some countries (Brain Drain, 2002 Daily Times) the money is typically spent on consumer goods and adds little to an economy's productive capacity. But the contributions of emigrants can also boost business investment and foster longer-term economic growth. Our survey has proved that majority considers brain drain has positive effects on the economy of Pakistan.

Economic believe that there is a basic convergence of economic interest between the developed and the developing world for liberalizing. Yet the multilateral trading system has not facilitated greater worker mobility between the labor-surplus and labor-scarce countries (Hasnain, 1999). Government consider brain drain as an economically productive phenomenon. Remittances and direct transactions generated by highly qualified human resources are taken as an achievement instead of an impending predicament in the way of national development (Shahana, 2005).

If people had the ability to temporarily participate in the labor force of their host country without having to take up permanent residence, it could be argued that this would be their preferred option but unfortunately most of the people leave the country on permanent basis which has a negative impact on the society because a country loses its potential labor force which could be a major source of gaining a competitive edge. The same has been proved by the analysis of the survey that we have conducted. Most people believe that brain drain is responsible for reducing the potential pool labor force available.

Political has always played a major role in the migration of human resource. During the Zia government, there was a shift of people from Pakistan to other developed countries. According to

one case study (Shahana , 2005) the prevailing circumstances of political instability ,poor law and order conditions, bureaucratic red tape in very domain of working and a general social disregard towards high educational attainment are more than enough to force the highly educated to leave the country.

Such a movement results in the loss of skilled people from the country which can play an important role in handling the economy in future. Because such people leave the country which can play due to the lack of political stability and hence there are no potential stability and economy and hence there are no potential people left in the country to handle the political conditions and the country once again goes in the hands of illiterate part of the economy which further worsens the situation. The same results have been observed from the survey conducted.

LIMITATIONS OF THE RESEARCH

This study has put forward particular set perspectives in regards socio-economic effect of Brain Drain on the economy of Pakistan. However, this research bears a few areas where more detailed and researched account will make-up for its limitations. These include:

- The sample size of the respondents (i.e., 50) and the number of universities (i.e. 2) and organizations puts forward a limited pool to pertinent responses in support of the model.
- The time frame available to the researchers was Limited.
- A Limited set of parameters are selected for defining the effect of brain and drain on the variable that we have identified for our research. Although we have been able to gather a lot of information regarding the identified variable but a more detailed definition of parameters could have brought forward some pertinently intricate facts.

CONCLUSION

In this paper, we have surveyed the literature and some of the evidence on the brain drain. The gist of this analysis is that skilled migration lowered welfare for the population remaining behind in the sending country. Before conducting the survey, we

had identified five variables which are very important for the social and economic development of the country. Then a survey was conducted to get input from the general public regarding the effects of Brain Drain on the variables.

The results matched with our assumed effect of the brain drain on variables and revealed the fact that Brain drain has a negative effect on the Economic growth, Productivity, labor force and the political situation of the country whereas it got only one positive effect and that is and the from of increase in foreign exchange reserves due to remittances by the people abroad.

It will not be correct to say that brain drain is always negative, though. If the employees go abroad on temporary basis, then instead of them having a negative effect, such a shift will have a positive effect on the social and back to the country. But if such a shift is on permanent basis then it will have a negative impact on the social and economic condition of a country because a country will lose a potential employee on which it has invested heavily.

In different countries, knowledge economy can be built on policies that foster mutual gain rather war for talent. The more imaginative people from different places are able to share and build on one another's ideas, the more in knowledge is discovered, the more diverse, uses for it will be invented. A world in which countries seek to hoard talent and ideas, and "raid" their "enemies" to acquire more, would breed resentment far more bitter than that of the brain drain era. Working together, we can make the most many opportunities, emerging century of human capital is offering.

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