

Investigating Causes of Human Capital Flight of Doctors and Engineers from Pakistan

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Abstract

The present study aims to investigate the causes of Human Capital Flight of doctors and engineers from Pakistan. Questionnaire was designed to ascertain the reasons for the inclination of these professionals to leave the country and settle abroad. Sample of 395 was selected. Doctors and engineers listed lack of suitable jobs, low salaries and law and order situation as major motives for moving abroad. Some sort of policy needs to be made and implemented to prevent these highly-skilled and qualified people from moving abroad.

Keywords: Human Capital Flight, skilled professionals, doctors and engineers

Introduction

Migration is one of the oldest traits of human civilization although the motive has been different like water, better living conditions, freedom to practice religion, etc. Movement of skilled professionals from UK to US and Europe was termed as 'Brain Drain' by Royal British Society for the first time (Oldfield et al., 1963). Merits and demerits of Human Capital Flight have been debated since long.

This study looks into the causes of Human Capital Flight of doctors and engineers from Pakistan during the period 2003 to 2013, discusses its after-effects and proposes to devise a strategy to tackle the issue with a two-pronged approach: proposes steps for stopping further flight of Human Capital and for attracting those who have already left the country and settled abroad.

Objectives

Following are the objectives of the study:

- i). To discuss the current trend of Human Capital Flight from Pakistan during ten years, i.e. 2003 to 2013
- ii). To detect the reasons of this flight of highly-educated professionals.
- iii). Devise strategy to minimize the damage being caused and thwart flight of human capital in future.

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Literature Review

Human Capital Flight or Brain Drain is the migration of skilled people from less developed countries to developed countries. Most important is the movement of skilled and qualified people from poor and developing countries to developed countries. Some scholars like (Bhagwati, 1976, Beine et al., 2003) have highlighted the negative externalities of brain drain, calling it a curse for developing countries, and Jagdish Bhagwati even asking to impose a tax on developing countries for the damages suffered by the developing countries. Other researchers like (Johnson, 1967, Straubhaar, 2000, Grubel and Scott, 1966) consider it fruitful for the economy of the state as well as global economy and termed it as brain exchange. Poor countries suffer dearly from this phenomenon and are losing human resource, each of whom takes at least 20-25 years to develop. It is becoming increasingly difficult for them to find suitable, experienced people to man their universities, hospitals and industries (Pang et al., 2002). Many researches were conducted to assess the reasons for this trend of flight of human capital and suggest remedies for the same. Researches like (Sajjad, 2011) have collected the Push and Pull Factors identified by different researchers and also identified reasons for the outflow and also gave some recommendations to reverse the trend.

Pakistan, being a third-world country, has been encountering the problem of flight of capital of two kinds: one is the flight of financial capital (Sarmad and Khilji, 1993) and the second is human capital flight (Ul Haque, 2007). Alarming, 2.7-million Pakistanis left the country during the period 2008 to 201 of which 41,498 technical and professionals workers left the country in 2012 (APP, 2013). Researchers have found nepotism, lack of opportunities for growth, professional isolation and dissatisfaction with their jobs as main reasons for their exodus from the country. Adding to the woes, more than 200 students who went abroad on scholarships to complete MS/PhD never returned citing those issues highlighted above (Chaudhry, 2016). In all, approximately 12,000 doctors having obtained education in Pakistan are settled abroad, serving countries like USA, UK, Canada and Australia (Mullan, 2005). This hampers our plans because despite spending heavily on medical education, Pakistan is grappling with a shortfall of 0.1-million doctors (2015). 14,000 doctors are produced each year, out of which 70% are women, but 50% of these lady-doctors never work, thus wasting their talent and precious public money goes the drain. Government spends almost Pak Rs. 2.5-million on each doctor educated in public-sector medical colleges, while very nominal fee is charged which comes to be Pak Rs. 0.1-million for the whole program. This hard-earned public money goes down the drain when the doctor leaves the country to settle abroad. Out of 32000 specialists doctors trained in the country, 40% have gone abroad (Junaidi, 2014). In addition to that,

Pakistan is grappling with shortage of skilled people in every field and many workers are going abroad annually. Many studies were conducted to ascertain the causes of this flight of Human Capital, but this study is being conducted to investigate the underlying roots, fallouts of this and also recommend some steps that could be taken to contain and attract this precious resource, which is priceless in nature.

Statement of the Problem

This research was undertaken to diagnose the reasons of Human Capital Flight, also known as Brain Drain, of Engineers and Doctors from Pakistan during the period 2003 to 2013. This study will look into the factors responsible for Human Capital flight, that is the Push Factors (issues in Pakistan responsible for forcing the people to move abroad) as well as Pull Factors (better-off conditions abroad attracting the professionals there). We will also propose steps that need to be taken in order to minimize brain drain with a two-pronged strategy: improve conditions to attract those who are serving abroad and retain those who are serving in the country as well as those who will be shortly graduating.

Sample and data collection

Sample of 395 was chosen keeping in view Slovin Formula (Yamane, 1967) out of population of 31056 doctors and engineers who left Pakistan during the period 2003 to 2013.

Research Hypotheses

After conducting extensive, literature review, six factors were identified as being detrimental to the Human Capital Flight. Thus these were taken as Independent variables namely, Career Development, Job Security, Work Environment, Social Factors, Economic Factors and Political Factors. Following hypotheses were developed:

- H₀₁: Career Development does not affect HCF from Pakistan
- H₁₁: Career Development significantly effects on HCF from Pakistan.
- H₀₂: Job Security does not affect HCF from Pakistan
- H₁₂: Job Security significantly affects HCF from Pakistan
- H₀₃: Work Environment does not affect HCF from Pakistan
- H₁₃: Work Environment significantly affects HCF from Pakistan
- H₀₄: Social Factor does not affect HCF from Pakistan
- H₁₄: Social Factor significantly affects HCF from Pakistan.
- H₀₅: Economic Factor does not affect HCF from Pakistan
- H₁₅: Economic Factor significantly affects HCF from Pakistan
- H₀₆: Political Factors does not affect HCF from Pakistan

H₁₆: Political Factors significantly affects HCF from Pakistan

Data Analysis

To measure internal consistency of aset of items, we used Cronbach Alpha, which shows the extent to which a set of items are related or linked as a group. Higher value of Alpha need not indicate the item is one-dimensional (for any one construct). It is not a test of statistical nature– but shows the reliability or consistency and value of 0.70 or more is accepted in Social Sciences.

Table 1: Reliability

Variables	Cronbach's Alpha	N of items
Career Development	0.816	5
Job Security	0.798	5
Work Environment	0.787	5
Social factor	0.803	5
Economic factor	0.732	3
Political factor	0.812	3
Human Capital Flight	0.747	5

Assumptions for normality

They are normally used to define parameters and show the degree to which data is normally scattered. Many tests are used for normality in research:

Kolmogorov-Smirnov Test

It is also used to test normality, but it does not always comply with the assumptions of normality.

Shapiro-Wilk Test

It is used for testing normality in Statistics and uses null hypothesis to examine if the sample chosen is from a population which is distributed normally. Null-Hypothesis in this test states that the population is distributed normally. So if the *p*-value is less than the chosen alpha level, then the null hypothesis is rejected and there is evidence that the data tested are not from a normally distributed population. But if the *p*-value is greater than the chosen alpha level of 0.05, then null hypothesis cannot be rejected and might be accepted.

Table 2: Tests of Normality

Kolmogorov-Smirnov ^a			Shapiro-Wilk		
Statistic	Df	Sig.	Statistic	Df	Sig.

Human Capital Flight	0.189	395	0.214	0.922	395	0.227
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a. Lilliefors Significance Correction

Table 3: Descriptive Statistics

Descriptive Statistics											
	N	Range	Min	Max	Mean	Std. Dev	Var	Skewness		Kurtosis	
									Std. Error	Statistic	Std. Error
Career Development	395	4.00	1.00	5.00	3.564	1.1675	1.363	-.73	.12	-.253	.24
Job Security	395	4.00	1.00	5.00	3.268	1.3607	1.852	-.41	.12	-1.01	.24
Work Environment	395	4.00	1.00	5.00	2.868	1.4188	2.013	.106	.12	-1.29	.24
Social Factor	395	4.00	1.00	5.00	3.372	1.3101	1.716	-.50	.12	-.847	.24
Economic Factor	395	4.00	1.00	5.00	3.194	1.3760	1.893	-.33	.12	-1.11	.24
Political Factor	395	7.00	1.00	8.00	3.319	1.3996	1.959	-.44	.12	-.676	.24

$p < 0.05$

Discussion

Reliability Statistics like Cronbach Alpha gave values above 0.7 which means that reliability and consistency of scale is good and can be used for data collection. Considering that data is distributed normally, tests like Shapiro-Wilk were conducted to assess the distribution of data for study. Descriptive Statistics including mean and median showed possibility of normal distribution with little variation.

Since the p-values obtained were less than alpha value of 5%, thus we failed to accept the null hypothesis and accepted the alternate hypothesis. This can be helpful to us to understand the reasons of Human Capital flight among the sample. Work Environment emerged as the main reason for leaving the country followed by Economic and Social Factors. Economic Factors like low salaries at home, intention to move abroad to be able to support the family financially and high standard of living were the main motivating factors for the respondents to leave the country. Social Factors like lack of security and a desire to live a better life in a foreign country were also major motives besides worsening political situation and political interference. Nepotism and lack of social justice have also led the doctors and engineers to think of leaving the country. Such conditions forced these professionals to think of looking for some opportunity to leave the country.

Some concrete policy-level decisions need to be made to prevent this outflow of these highly-educated and skilled doctors and engineers. Only if the government takes some serious steps like ensuring merit-based appointments, raising salaries to a reasonable level, interacting with expats to know their problems and address their concerns to ensure that they can return respectably will help the expatriate doctors and engineers think of returning to the country and also refrain the doctors

and engineers from leaving the country.

Significance of the research

This study helps sum up the main reasons for exit of Pakistanis from the country. Doctors and engineers are a human resource much needed in developing countries that spend a portion their GDP on educating and training these professionals, but when it is time to return the favour, they desert the country leaving their countrymen to suffer. Having identified the factors responsible for the migration of these professionals, government shall take steps to plug these escape routes and create a work environment in its institutions to nurture these professionals so that they can stay in the country.

Limitations of research

There are some limitations of this study as it does not encompass several other factors such as Academic Pull factors which need to be investigated as future research. Besides, the return intentions of Pakistani students ought to be inquired for further insight.

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