International Students Mobility: A Case of Pakistan

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Abstract
In the current century, it is becoming more and more critical and important for every individual to have a global perspective in pursuing and shaping his/her future. Through studying abroad people can realize their full potential to benefit the community and nation. International students are an important source of additional financial resources for academic institutions. The academic mobility is mainly for the rich class and it continues to be a privilege of economic elite. Since the establishment of Higher Education Commission (HEC) of Pakistan in 2002, the students from average and poor families of Pakistan have also been abroad for higher studies. The selection of these students is done via a Graduate Record Examination (GRE). Their entire expenses of the successful candidates are born by HEC, Pakistan. In this paper, we would thoroughly discuss and analyze the trends of outbound Pakistani students by taking statistical data from Higher Education Commission of Pakistan and other secondary sources. The top host countries for Pakistani students and the academic achievements of these students abroad would also be analyzed.

Key Words: internationalization, student mobility, higher education, Pakistan

1. Introduction
In an increasingly globalized world, investing in international education is a growing priority for individuals and countries alike. Students gain the experiences that shape their futures and careers. While the world benefits itself with the talented minds who contribute to research, and innovation. Student mobility is a trans-continental phenomenon. Every year thousands of students cross the oceans in order to attain quality education for their better future. International student mobility is very beneficial for the financial soundness of many higher education institutions worldwide, in addition to remaining an important
means of attracting talented students and expanding the campus colors and diversity. International students are fundamental of financial and cultural health of world universities. According to Kahanec and Kralikova (2011): “Higher education policies especially the quality of higher education institutions and the availability of programs taught in the English language can act as an important tool to attract international students and thus high-skilled migrants. Sergio, Roberta and Vicente (2014) conducted a study upon 429 international university students of different nationalities. Findings revealed that the motivation to study abroad for personal growth is strongly associated to the commitment and in-depth exploration identity processes, whereas the motivation to study abroad with the aim of changing life style and enlarging job opportunities is positively associated with reconsideration of commitment and in-depth exploration. According to Altbach and Peterson (2008): “Students, whether supported by government, scholarships, their families’ or their own resources, will constantly move in the direction of educational opportunities”. International education has also been high on the agenda at both the provinces and federal level of Pakistan since the establishment of Higher Education Commission (HEC) of Pakistan in 2002. Outbound mobility provides students with intercultural competence. Outbound mobility exposes Pakistani students to different and unfamiliar situations and makes them the global citizens.

In the present paper, our main focus is to analyze the trends of outbound mobility of Pakistani students. We start with defining internationalization and rationale of its use. This is followed by the discussion on conceptual frame work of students’ mobility, its definition and the push and pull factors causing mobility. Then we provide the patterns of students’ mobility across the world. This is followed by detailed discussion showing the trends of outbound Pakistani students’ mobility where a comparison is made between the two periods, before and after the establishment of HEC, Pakistan. This highlights in detail the efforts of HEC, by examining statistical data obtained from HEC, Pakistan and other secondary sources, to improve the higher education in Pakistan through internationalization. A thoroughly discussion and analysis of the host countries for Pakistani students, their disciplines are provided as well.

2. Internationalization: Basic Concept

What is meant by internalization of higher education? Before going into the definition, first, we must recognize that many different terms have been used in connection to internationalization of higher education. Knight (2008) and De Wit (2002). In practice as well as in the existing body of literature, it is still usual to use the terms which only focuses on a specific dimension of internationalization and/or provides only a part of rationale for internationalization. Mostly, the terms which are in use focus either on mobility related (e.g. obtaining education abroad, studying abroad, academic mobility etc.), or curriculum related (e.g. intercultural education, international or global studies, etc.). During the last decade, a new family of terms has been introduced regarding internationalization of higher education and these terms were not actively present before. Now-a-days, people uses these terms which best explain their view regarding internationalization of higher education. According to De Wit (2002), “As the international dimension of higher education gains more attention and recognition, people tend to use it
in the way that best suits their purpose”. The most commonly used definition of internationalization is provided by Knight (2008): “a process of integrating an international and cultural dimension into the teaching, research and service functions of the institution.”

In the past, the terms, internationalization and international education were used alternatively. More recently, the terms, globalization and internationalization have been used synonymously. According to Scott (2005): “The distinction between internationalization and globalization, although suggestive, cannot be regarded as categorical. They overlap, and are intertwined, in all kinds of ways”.

According to Teichler (2004): “Globalization initially seemed to be defined as the totality of substantial changes in the context and inner life of higher education, related to growing interrelationships between different parts of the world whereby national borders are blurred or even seem to vanish.” Knight (2008, p. 3) emphasized the updating of concept of internationalization of higher education constantly and suggested that: “The international dimension of higher education has been steadily increasing in importance, scope, and complexity”.

3. Internationalization: The Rationales

In the 21st century, education has become more international. According to De Wit (2002), there should be distinction between “why we are internationalizing higher education?” and “what we mean by internationalization?” while discussing internationalization of higher education. In the existing literature, both the meaning of internationalization and rationale for internationalization are presented in a mixed way in the sense that most often a rationale for internationalization is provided as a description of internationalization. According to Mary (2012): “The internationalization of higher education brings a lot of benefits to Global North Universities. Mainly they generate greater revenues and get the opportunity to recruit the highly skilled immigrants”.

Existing literature [De Wit (2002, p. 83-102), Zolfaghari (2009)] categorizes the rationales for internationalization into four sub-categories: (a) Political, (b) Economic, (c) Social and Cultural and (d) Academic rationales. Political rationale mainly concerned with issues such as national security, peace and stability. The economic rationale covers competitiveness and growth, national education demand and financial incentives. The academic rationale related to enhancing learning process and teaching and achieving excellence in scholarly activities and research. The Socio-Cultural rationale enhances the role in creating intercultural competence for the students, faculty and academicians.[see Kreber (2007)].

4. Students Mobility: A Conceptual Framework

Despite much work on international education and student mobility in the past decade, the issues of what constitutes student mobility, and who is a mobile student remain unresolved. De Wit et al. (2008) “Countries differ in the criteria used to actually report data concerning mobile students, and that such data may not be entirely comparable”. UNESCO (2006) In addition, the report, defined internationally mobile students via their prior education, citizenship and permanent residence. According to Richters and Teichler (2006) a student is said to be internationally mobile if “student having crossed a national border in order to study … for at least … a certain period of time in the country they have moved to”. 
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The same definition has been adopted in the current research article. There are several challenges in defining and comparing data related to internationally mobile students. De Wit et al. (2008) characterized the students mobility internationally as influenced by the pull and push factors. Pull factors include the characteristics of a country or an institution which make it attractive to students to move to study in that country or institution. In contrast, push factors include the factors of a country or an institution which make it less attractive and hence, make students to seek opportunities elsewhere such as a low quality of academic programs, lack of adequate funding, significant overcrowding, and poor working conditions for academic staff and administrators.

In the context of this paper push factors are analyzed from the point of view of government priorities as result of lack of capacity and or lack of potential students to take up higher education opportunities, whereas pull factors are “magnets” of opportunities that attract international students (from the student point of view).

5. Student Mobility across the World

The US is the most popular destination for International students. China and India are largest sending countries of international mobile students. Demand for overseas education in both nations is driven by an emerging middle class. The higher education systems in both the countries are unable to provide quality education. India unlike China does not have long standing Government policy of sending its students abroad. That’s why India has smaller outbound mobility than China. The US is ranked lowest among the many countries around the world in outbound mobility ratio. Outbound mobility from Africa is mainly focused towards those countries which colonized them in past.

5. Outbound Mobility of Pakistani Students

From 1998 through 2010, the number of students studying overseas has increased sharply from 13,127 to 36,366 as can be seen from Figure 1 below:

![Graph showing outbound mobile Pakistani students (1998-2010)](image)

Source: Institute of International Education (IIE, Open Doors 2011)

Figure 1: Outbound Mobile Pakistani Students (1998-2010)
It is quite meaningful that over last decade the Pakistani Government has focused upon the internationalization of higher education through outbound approach. The Government of Pakistan established Higher Education Commission (HEC) of Pakistan, to promote higher education and improve the quality of education in Pakistani institutions, in 2002.

So far HEC has sent a total of 8537 scholars in different countries abroad for attaining higher education (MS/MPhil/PhD and Post-Doctoral level) under different categories out of which 4203 has completed their studies. Till June, 2011, there were a total of 775 scholars who had been abroad out of which 689 were males and 86 females. The male – female ratio was 89% to 11%. The least number of females had been abroad due to family and cultural reasons. The detail of HEC overseas scholarship schemes is provided in Table 1 below:

**Table 1: Details of HEC Overseas Scholarship Schemes**

<table>
<thead>
<tr>
<th>Programme</th>
<th>Scholar Proceeded</th>
<th>Scholars Completed Studies (till June 2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-Doctoral Fellowship Programme</td>
<td>570</td>
<td>530</td>
</tr>
<tr>
<td>Split PhD Scholarships</td>
<td>86</td>
<td>55*</td>
</tr>
<tr>
<td>Partial Support for PhD studies Abroad</td>
<td>200</td>
<td>86*</td>
</tr>
<tr>
<td>1000 Cuban Scholarships for Studies in General Comprehensive Medicine</td>
<td>604</td>
<td>Nil</td>
</tr>
<tr>
<td>US needs based Scholarship Program for Pakistani University Students</td>
<td>901</td>
<td>1250</td>
</tr>
<tr>
<td>Overseas Scholarship Scheme for PhD in selected fields Phase-I</td>
<td>731</td>
<td>477</td>
</tr>
<tr>
<td>Overseas Scholarships Phase-II</td>
<td>1540</td>
<td>538</td>
</tr>
<tr>
<td>Full bright Scholarship Program</td>
<td>233</td>
<td>66</td>
</tr>
<tr>
<td>PhD and MS/M Phil leading to PhD Scholarships</td>
<td>2529</td>
<td>544*</td>
</tr>
<tr>
<td>PhD (jointly funded and closed programmes)</td>
<td>240</td>
<td>135*</td>
</tr>
<tr>
<td>International Research Support Initiative Program (IRSIP) for Indigenous PhD Scholarships</td>
<td>654</td>
<td>378*</td>
</tr>
<tr>
<td>MS/MPhil/Masters Scholarships (HEC/Jointly funded &amp; Others)</td>
<td>819</td>
<td>674*</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8537</strong></td>
<td><strong>4203</strong></td>
</tr>
</tbody>
</table>

* Indicates that the figures are obtained till June 2011

Source: Higher Education Commission (HEC) of Pakistan
In addition, out of 570 post-doctoral candidates, 530 have completed their degree and are back in Pakistan. For the scholars who are doing PhD in Pakistan, Higher education Commission of Pakistan started two programs to provide the international exposure to them. First: Split PhD Scholarships and Second: International Research Support Initiative Program (IRSIP) for Indigenous PhD Scholarships. These programs help scholar sharing their work with the foreign faculty and this helps a lot in enhancing their research experience. In addition, HEC is also involved jointly funded scholarships with other countries and organizations. In the split PhD Program, 86 scholars were sent in total. So far 55 have come back out of which 11 came back in 2010-11. In the category of Post-Doc Fellowships 570 scholars had been abroad out of which 530 have come back while under the category of MS/MPhil/Masters category total of 819 scholars were sent to different countries. So far 674 are back out of which 82 came back in 2010-11 only.

5.1 Funds Released to HEC by Pakistani Government

For efficient allocation and disbursement of funds, Higher Education of Pakistan has devised a simple formula based funding mechanism that assigns appropriate weights to different need and performance indicators along with students and faculty strength. The detail of recurring funds released to higher education sector during last four years is provided in Figure 2 below:

![Figure 2: Recurring Grant Released (in Million Rs.) 2008-2013](image)

Source: Higher Education Commission (HEC) Pakistan

5.2 Host Countries for Pakistani Scholars

The Pakistani scholars had been to 15 different countries under the outbound mobility for obtaining higher education (MS/MPhil/PhD and Post-Doctoral level). A total of 2529
scholars had been abroad in these countries till June, 2011. The country wise distribution of scholarships awarded by HEC is provided in Figure 3 below.

From the figure 3, we can see that France hosted the maximum Pakistani scholars i.e. 600 followed by Germany i.e. 397. Austria and Netherlands welcomed 346 and 222 scholars respectively. United Kingdom (UK) hosted 220 Pakistani scholars. Pakistani scholars love to visit UK because it was their colonial master and thus they are very good in English. It is very interesting that 104 scholars had been to China. Normally Pakistani scholars avoid China because of language barriers. Thailand also hosted 62 Pakistani scholars as Pakistanis love to study at Asian Institute of Technology (AIT). The least number of students had been to Canada i.e. 7 followed by USA i.e. 34.
5.3 Majors Disciplines Adopted by Pakistani Scholars

There are six major disciplines covering all areas of study. The detail of total overseas PhD scholarships awarded till June, 2011 is provided in the following pie-chart (See Figure 4 below):

![Pie Chart: Overseas PhD Scholarships awarded by June 2011 (Discipline wise Distribution)](chart)

Source: Higher Education Commission (HEC) Pakistan

**Figure 4: Overseas PhD Scholarships awarded by June 2011 (Discipline wise Distribution)**

The highest number of scholars had been in the Engineering and Physical Sciences i.e. 731 and 731. In Engineering and Technology 203 and 135 had been in France and Germany only. In Physical sciences the higher number of students had been to Austria and Germany i.e. 188 and 126 respectively. For Biology and Medical sciences 303 scholars had been abroad. For Agriculture and Veterinary Sciences 343 students had been to different countries. In social sciences 249 scholars had been abroad. For business education, total of 129 scholars had been to various countries. For Arts and Humanities only 43 scholars went abroad.

The details of total overseas PhD completed till June, 2011 has been shown via a pie-graph (See Figure 5, below):
Figure 5: Total Overseas PhD Completed by June 2011 (Discipline Wise)

Under the Overseas scholarship scheme, most of the students had been for Engineering (276, 36%) and Physical Sciences (252, 33%). Biological and medical sciences are 92 (12%) and for Agriculture and Veterinary Sciences 73 (9%) scholars had been abroad. In Social Sciences, there are 63 (8%) scholars only and it is important to mention here that the least number of students had been for Business Education i.e. 19 (2%). It’s very clear from here that more importance was given to Engineering and Technology discipline and Business Education was the most neglected discipline. By 2011, all of these scholars under the overseas scholarship scheme came back to Pakistan after completing their PhDs.

5.4 Comparative Analysis of PhDs 1947-2002 and 2003-2011

This section compares the number of PhDs produced (discipline wise), for the two periods, first before the establishment of Higher Education Commission of Pakistan (from 1947 to 2002) and the period influenced by HEC (i.e. 2003-2011). This will help in analyzing the patterns of higher education in the past decade. The details are presented a multiple bar chart (See Figure 6 below).

From 1947-2002, total number of PhDs produced are 3279 whereas in the years 2003-2011, the number of PhDs produced is 3902. You can see the difference, which is quite obvious and marvelous. In Agriculture and Veterinary Pakistan produced 348 PhDs from 1947-2002 whereas it produced 577 PhDs just from 2003-2011. In Biological and Medical
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Sciences it produced 586 from 1947-2002 as compared to 852 from 2003-2011. The disciplines of Engineering and Technology and Business Education are very important to mention here as the number of PhDs have improved tremendously in these disciplines. Engineering and technology produced 208 PhDs in 2003-2011 as compared to only 21 in 1947-2002. Business Education produced 103 PhDs in 2003-2011 as compared to only 14 in 1947-2002. The performance of Arts and Humanities is pathetically poor i.e. 665 in 1947-2002 and 434 in 2003-2011.

Source: Higher Education Commission (HEC) Pakistan

Figure 6: Discipline wise Comparative Analysis of PhDs (1947-2002 and 2003-2011)
In addition, we have also provided patterns of discipline wise PhDs produced in the year 2005-2010. This will help in assessing the patterns of subject wise interest of scholars. The pattern has been indicated by a multiple bar chart (See Figure 7 below).

Source: Higher Education Commission (HEC) Pakistan

Figure 7: Discipline wise detail of PhDs (2005-2010)
5.5 Post-Doctoral Fellowship Program

Post-Doctoral Fellowship Program of HEC provides 9-12 months fellowships and these fellowships are offered on open merit at the national level. The details of competed post-docs till June, 2011 with respect to host country is provided in the form of a bar chart (See Figure 8 below).

![Bar chart showing country-wise breakdown of completed Post Docs till June 2011](chart.png)

Source: Higher Education Commission (HEC) Pakistan

**Figure 8: Country wise Breakdown of Completed Post Docs till June 2011**

A total of 461 Pakistani scholars have completed their Post-Docs from different countries. The highest number of Post-Docs had been to UK and USA i.e. 178 and 131 respectively. The highest number of Post-Docs had been in the Agriculture and Veterinary Sciences, Biological and Medical Sciences and Physical Sciences i.e. 157, 131 and 129 respectively.

We have also shown the discipline wise Post-Doctoral Scholarships awarded till June, 2011. The details are provided in the following pie chart (See Figure 9 below).
Overall a total of 574 post-doctoral scholarships have been awarded till June 2011. Out of these major shares is of Agriculture & veterinary Sciences (157, 27%) while scholars in Biological & Medical Sciences are 131 (23%) in number. The discipline Physical Sciences includes 129 (22%) scholars. The minimum number of scholars who availed post-doctoral award belongs to Arts & Humanities, i.e. only 2% (10 scholars).

6. Conclusion and Recommendations

In our continuously shrinking world, international students constitute a big group of people engaged in a global mobility especially those who cross continents’ borders to experience difference through exposure to significantly varied cultures and foreign places.

The findings presented in this paper will be of interest to policy makers and education institutions in the Pakistan. Following are our recommendations:

a) We need to have sustainable funding for mobility. Taking into account the tight constraints on public finances, the strategy should include measures like philanthropy, support from business etc.

b) Flexibility in Curriculum: There is a need to encourage greater flexibility in the higher education curriculum to make it easier for students to spend time abroad during their studies.
c) There should be stronger promotion of international awareness prior to university at school level, in order to inspire and encourage interest before students enter higher education.

REFERENCES


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