Education export - students studying abroad: Understanding how HEIs and host countries benefit from international students and what approach they can use to attract them

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Over the last thirty years the number of students studying outside their country of citizenship has increased more than five times from 0.8 million in 1975 to 4.5 million in 2014 (OECD, 2014a). According to OECD forecasts, eight million students will be globally mobile by 2025 (OECD, 2012). The significant increase in student mobility can be attributed to a number of factors. The purpose of this paper is to provide analyses of factors impacting education exports with a focus on international student mobility. The paper explores reasons for HEIs and host countries (represented by governments) to attract international students, analyses the factors that affect international student choice using a push and pull framework and provides recommendations to HEIs and the governments on their internationalization strategies.

Key words: Education exports, student mobility, internationalization, push and pull factors.

Introduction to higher education exports

The purpose and structure of the paper

The purpose of this paper is to provide analyses of factors impacting education exports with a focus on international student mobility. Firstly, this paper explores what are the reasons why HEIs and host countries (represented by governments) would be motivated to attract international students. Secondly, it analyses the factors that impact international student choice when selecting their study destination. Thirdly, the paper provides recommendations to HEIs and the governments on their internationalization strategies.

This paper is structured in six chapters. The first chapter introduces the purpose of the paper and relevant concepts. The second chapter provides an overview of trends in

higher education relevant for understanding higher education exports and student mobility analysis. Chapter three and four discusses how HEIs and host countries can benefit from attracting international students. Chapter five analyses "pull" and "push" factors that affect student choice when choosing a study destination abroad. Finally, chapter six provides recommendations for HEIs and governments on strategies to attract international students.

Relevant concepts in education exports - student mobility

In order to provide insightful analysis, it is important to explain some of the relevant concepts related to higher education exports and student mobility analysis. In the paragraphs below, relevant concepts and differences between them will be explained.

a) Higher education exports – 4 types of services

In the last few decades, international higher education has been increasingly perceived as a commodity that can be freely traded between nations (Altbach & Knight,2007). Under these assumptions commercial factors play a prominent role in higher education (Kirp, 2003; Altbach, 2002). Recognizing these assumptions, the WTO has provided a regulatory framework that encourages international trade in education under General Agreement on Trade in Services(GATS) (Altbach & Knight, 2007). These services can take four different forms – consumption abroad, commercial presence, cross border supply and presence of natural persons. Firstly, consumption abroad requires consumer to move to the country providing education services. This category usually refers to students moving abroad for the purpose of study in the context of higher education. Secondly, commercial presence is possible when the service provider establishes facilities in another country in a form of branch campuses or joint ventures by collaborating with local institutions. Thirdly, cross-border supply entails distance learning (e.g. e-learning) and franchising courses and degrees. Physical movement of the consumer and provider is not required. Finally, presence of natural persons takes place when academic staff travel to other countries to provide educational services (WTO, 2013; Altbach & Knight, 2007; Cai & Kivisto, 2013). The focus of this category is the first service – consumption abroad. In the context of higher education this refers to student mobility.

b) International students vs foreign students

When talking about international students and their mobility patterns, it is important to distinguish between international and foreign students. The UNESCO Institute for Statistics, the OECD, and Eurostat use a common definition for international students referring to students who "are not residents of their country of study or those who received their prior education in another country" (OECD, 2013). Foreign students are those who study in the host country but have a citizenship from another country. International students are a subset of foreign students. When analysing mobility data on international students is preferred. However, if such data is not available, data on foreign students is used. Until 2012 many countries only provided data on the foreign students. Thus, trends in the global number of foreign students until 2012 is not comparable to more recent data (OECD, 2015).

c)   Globalization vs Internationalization

As explained by Altbach and Knight (2007), it is important to differentiate globalization from internationalization. Globalization refers to "the context of economic and academic trends that are part of the reality of the 21st century" while internationalization comprises "the policies and practices undertaken by academic systems and institutions—and even individuals—to cope with the global academic environment". The incentives for institutions to become more international may include financial considerations, aspiration to build a curriculum based on international content, building brand awareness and others (Altbach & Knight, 2007; Knight, 2011).

Importance of education exports

The importance of education exports is reflected by several trends. Firstly, demand for higher education abroad has significantly increased in the last few decades. Over the last thirty years the number of students studying outside their country of citizenship has increased more than five times from 0.8 million in 1975 to 4.5 million in 2014 (OECD, 2014a). According to OECD forecasts, eight million students will be globally mobile by 2025 (OECD, 2012).

Secondly, also the supply of available study programs and international services have expanded as increasing number of countries and HEIs focus on education exports to generate income for their institutions and national economies. For example, Australia is one of the countries that has placed a strategic importance on education exports. In 2012

it generated more than 15 billion dollars of export income from which 9.8 billion came from higher education exports. Moreover, research shows the total investment is considerably higher when considering the living and tourism expenses of students, visiting families, and friends (Group of eight, 2014).

Thirdly, education exports offer an appealing way to attract high potential talent from abroad at prime working age. This is of particular interest of countries who are exposed to risks of ageing population and aspire to become knowledge societies. For example, the proportion of international students are the highest in advanced studies such as PhD and doctorate programs (OECD, 2015). Thus, they also contribute to country's knowledge economy and often provide highly skilled labor for the job markets (Group of eight, 2014).

Fourthly, besides the benefits, education exports raise questions about "brain drain" and "brain gain", immigration policies and cultural differences as well as long-term impact on host and home countries. Additionally, education exports create new challenges for quality assurance and accreditation (Altbach et al, 2007).

Therefore, higher education export is a topic of significant interest to higher education institutions as well as government representatives and policy analysts trying to understand if and how their country can benefit from higher education exports-student mobility. This has led some governments and institutions to invest considerable effort into attracting international students (Altbach et al, 2007; OECD; 2015).

Trends in higher education exports - student mobility
Development over time
To better understand higher education exports and student mobility, it is worth looking at higher education and student mobility developments over time, top origin and destination countries as well as the most popular fields of study.

Student mobility has significantly increased over the past few decades. In 1975 the number of international students worldwide equalled 0.8 million while in 2012 it had increased more than fivefold to 4.5 million. Moreover, between 1990 and 2011 there was a greater increase in internationally mobile students than overall increase in

demand for tertiary education. Additionally, conversely to what might have been anticipated, the demand for education abroad did not decrease during the global economic crisis. The growth in student mobility reflect overall increase in higher education demand and "globalization of economies and societies" (OECD, 2013).
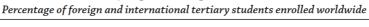
The growth in internationally mobile students has been driven by several factors such as increased demand for tertiary education, internationalization of the highly skilled labor market, and decreasing costs for travelling and communication. Student mobility has been further incentivized by many governments and supra-national institutions seeking to promote academic, social, cultural, and political links between the countries (OECD, 2015). Some of the perceived benefits of international higher education are high-status qualifications and access to international job market as well as cultural enrichment and improved language skills (OECD,2013).
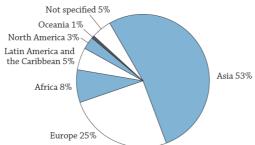
Thus, with rapidly increasing demand, higher education export has become a lucrative business. Many new players have entered the marketplace to compete for international students. Well established countries such as the United States and Germany experienced increased competition from new entrants such as Australia, New Zealand, Spain, Russian Federation and Korea (OECD, 2013).

Top regions and countries of origin

According to the data reported by OECD and UNESCO, majority of international students come from Asia, representing 53% of all international students. Furthermore, 22% of these students come from China. After China, India is the next Asian country supplying the largest number of international students (6%). The second region with the largest proportion of students studying abroad is Europe representing 25% of the mobile students. Germany is the largest sender of international students (3.9%) from European countries followed by France (2.4%). The third region with the largest number of international students enrolled abroad is Africa (8%), then Latin America and Caribbean (5%), followed by North America (3%) and Oceania (1%) (OECD, 2015) (see the Chart 1 below).

Figure 1: Distribution of foreign and international students in tertiary education, by region of origin (OECD, 2013)

Percentage of foreign and international tertiary students enrolled worldwide

Not specified 5%
Oceania 1%
North America 3%
Latin America and the Caribbean 5%
Africa 8%
Asia 53%
Europe 25%

Source: OECD. Table C4.3. See Annex 3 for notes (www.oecd.org/education/education-at-a-glance- 19991487.htm).
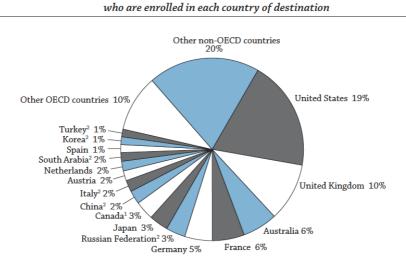*StatLink* http://dx.doi.org/10.1787/888933284277

Most popular destination regions and countries

Based on OECD and UNESCO Institute for Statistics data, 73% of international students studying abroad choose to go to one of the OECD countries. For example, Australia, Canada, France, Germany, Japan, the United Kingdom, and the United States host more than 50% of the total international students worldwide. Furthermore, within OECD countries, EU21 countries attract the largest proportion of international students (35%). However, approximately 71% of those students come from other EU21 countries which might partially reflect the effect of EU mobility policies. Furthermore, North America is the second most popular destination for international students with the US and Canada accounting for 23% of the students choosing to study abroad (OECD, 2015).

When comparing each country rather than a region on number of international students attracted, the US comes in first with the largest number of international students (19%). It is followed by the UK (10%), Australia and France (6%), Germany (5%), Canada, and Japan (both 3%) and, based on data on foreign students only, the Russian Federation (3%). Even though these countries account for more than 50% of international students, several other countries such as China, Italy, Austria, The Netherlands, South Arabia host considerable number of international students (see Chart 2 below) (OECD, 2015).

Figure 2: Distribution of foreign and international students in tertiary education, by country of destination (OECD, 2013)

Percentage of foreign and international tertiary students reported to the OECD who are enrolled in each country of destination

1. Year of reference 2012.
2. Data refer to foreign instead of international students.
Source: OECD. Table C4.4, and Table C4.6, available on line. See Annex 3 for notes (www.oecd.org/education/education-at-a-glance- 19991487.htm).
StatLink http://dx.doi.org/10.1787/888933284267

Most popular fields of study

The most popular fields of study pursued by international students are business, social sciences and STEM (OECD, 2015; ITA Education, 2016; QS, 2014). On average more than one third of the international students in the OECD countries choose to study business, law, and social sciences. This is followed by 14% of international students following engineering, manufacturing and construction tracks, 13 % specializing in humanities and arts, and 11% pursuing science degrees. The study fields with the lowest percentage of international students, on average, are agriculture (2%), education (4%), and services (4%) (OECD, 2015).

Several reports indicate that popular fields differ across the countries. For example, in countries such as Australia, Estonia and Luxembourg most international students choose to study social sciences, business, and law (OECD, 2015). In the US more than 50% of international students coming from India, Iran, Kuwait, Nepal and Nigeria study in STEM fields. The governments of these developing countries support their students as part of the country's broader development plans. Furthermore, around 25% of international students studying in the US while originally coming from China, France,

Germany, Indonesia, Venezuela, and Vietnam choose to study business or management (ITA Education, 2016).

Reasons for HEIs to attract international students

Education exports as a source of additional revenue

With increased globalization, demand for tertiary education services has grown, and many countries are internationalizing their education systems to benefit from education exports. Moreover, as the governments reduce the public spending on higher education, universities are seeking ways to increase their revenue streams. Charging higher fees from international students while keeping standard fees for the citizens is an appealing way to generate additional revenues and has been practiced in many countries including Australia, Canada and the US. Moreover, majority of initiatives to internationalize education are started by universities in developed countries (Altbach et al, 2007). Therefore, until recently the revenues generated by higher education exports predominantly benefited already well-developed economies. For example, OECD countries host 73% of all international students (OECD, 2015).

A good example of how HE exports can generate additional revenues can be witnessed in Australian and the US HE systems. Higher education was the fourth largest export in Australia by 2012, generating approximately 10 billion dollars of export income. Between 2003 and 2012 higher education exports in Australia increased by 133% outpacing the overall growth of Australian exports (Group of eight, 2014). Furthermore, the US is the most demanded study destination for international students. In 2014 it hosted 975 000 international students representing 22% of all students studying abroad (ITA Education, 2016). These results indicate that education exports provide attractive opportunities to generate additional revenues for the universities.

Education exports to internationalize the education experience

One of the main reasons cited for internationalizing the higher education is the aspiration to achieve international academic standards for teaching and research. It is assumed that, by strengthening the international dimension of teaching, research, and service, the overall quality of higher education is enhanced (Qiang, 2003). Furthermore, the results of the IAU Global survey indicated that the two most often mentioned reasons for universities to pursue internationalization were "increased international

awareness of/deeper engagement with global issues by students" and "improved quality of teaching and learning" (European Parliament, 2015).

Although internationalization refers to "the policies and practices" utilized "to cope with the global academic environment" (Altbach & Knight, 2007) rather than number of international students studying at HEIs, international students do contribute to more international environment at HEIs. They bring new perspectives, ideas, and values from their home countries to HEIs, increasing the international awareness and engagement with global issues among domestic students both on academic as well as social level through classes, group works, extracurricular activities, and leisure time together.

Education exports to enhance cooperation and build capacity

The results of the IAU Global survey indicated that the third most important reason for universities to pursue internationalization was to "enhance cooperation and build capacity" (European Parliament, 2015). The proportion of international students is the highest in the most advanced levels of tertiary education such as master's, doctor's or equivalent level (see chart 3 below for distribution across different countries) (OECD, 2015). Attracting international students enrolled at the highest levels of education is attractive to HEIs since can benefit from their contribution to R&D either as students or, later on, as academics. For example, out of 62 000 postgraduate students enrolled in Australian universities in 2012, 31 % were international students. From this half were enrolled in Science, Technology, and Mathematics fields. A study by the World Bank indicated that "a 10 per cent increase in the number of foreign graduate students increased patent applications by 3.3 per cent" (Group of eight, 2014).

Figure 3: Student mobility in tertiary education, by ISCED level (OECD, 2014)

International or foreign student enrolments as a percentage of total tertiary education

□ Total tertiary education   ○ Bachelor's or equivalent   ◆ Master's or equivalent   ▲ Doctoral or equivalent

1. Year of reference 2013.
2. Foreign students are defined on the basis of their country of citizenship. These data are not comparable with data on international students and are therefore presented separately in the figure.
3. International students at the bachelor's or equivalent level are included in the master's or equivalent level.
Countries are ranked in descending order of the percentage of international or foreign students in tertiary education.
Source: OECD. Table C4.1. See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).
StatLink http://dx.doi.org/10.1787/888933398531

Reasons for host countries to attract internationals

Education exports as a source of additional revenue

Revenues generated from tuition fees paid by international students provide additional resources to grow the host country's economy. However, tuition fees are only a part of the total contribution these students generate for their host countries. Associated living costs and tourism revenues are an appealing source of income for the host countries and particularly local communities where international students reside (ITA Education, 2016).

According to a survey by Tourism research Australia (2007), international students studying in Australia are often visited by friends and family. On average, for every 10 international students studying in Australia, approximately 3 family members and 2 friends from abroad visit each year. This means that international students attract around 160 000 overseas tourists yearly, based on 2014 enrolment data (Group of eight, 2014), and, typically, tourists spend around 2 000 dollars while visiting. Moreover,

international students often return to Australia after graduation for tourism purposes (Access Economics, 2009).

It is estimated that "for every 10 international students studying abroad, 2.9 jobs are created" (Access Economics, 2009). Out of all the new jobs created, only 25 % are in the field of education while the remaining jobs are spread across other industries. This extrapolates to 95 000 jobs created in Australia due to the incoming international students, based on 2014 enrolment data (Group of eight, 2014).

Education exports as a source of highly skilled labor

International students also contribute to the host country's global competitiveness by boosting the number of highly skilled people available to the labor force, often in the fields were people are lacking (Altbach, 2004). These students can help to address short-term skills needs and contribute to long-term economic growth. For example, short-term skills shortages can inflict high opportunity costs for the businesses as well as broader economy, and measures to address these shortages are often ineffective and involve considerable time lags (Group of eight, 2014). Thus, international students provide a pool of resources readily available for businesses without a need to go through international recruitment process, often at higher education levels (LH Martin Institute, 2011).

Furthermore, long term growth is dependent on "population, participation and productivity" (Productivity Commission, 2013). With birth rates decreasing in many developed countries, skilled migration is a "key instrument through which long run economic growth is maintained". International students are ideal source of "highly skilled migrants of prime working age" (Group of eight, 2014). Moreover, these students have already developed local networks, are familiar with the host country's institutions and have accustomed to local culture and conditions. These factors can considerably ease migrant's integration in the host country (Group of eight, 2014).

Education exports to strengthen international networks and build reputation

Countries that attract large numbers of international students to their tertiary education institutions are in a favourable position to build good international networks with other countries. A study on outcomes and impacts of international education in Australia

found that 45 per cent of graduates surveyed stated that they had built networks with Australians during their studies (IDP, 2008). Moreover, international students educated in Australia often return home and assume leadership positions both in the government as well as industry (COAG, 2010). The relationships built with international students deepen Australia's understanding of the wider world while also enhancing the world's understanding of Australia. Such exchange contributes to regional and global reputation of Australia (Group of eight, 2014).

Pull and push factors attracting prospective students

Pull and push factor overview

Chapters three and four were dedicated to explaining some of the key reasons why HEIs and host countries would be interested to attract international students. This chapter will review the factors that affect how students select their study destinations.

When analysing international student choice to study abroad, Altbach (2004) discussed "pull" and "push" factors. "Pull" factors are reasons why students are attracted to study in the particular destination country such as prestige, career opportunities and lifestyle. "Push" factors focus on reasons why students would want to leave their home country such as political and social forces or limited access to desired higher education programs at country of origin. Moreover, "Pull" and "push" framework has been widely used by other higher education researchers (e.g. Becker & Kolster, 2012; Bray & Li, 2007; Chen, 2017; Lee, 2017; Mazzarol & Soutar, 2001). Due to its comprehensive and logical approach, simplicity and possibility to include perspectives from various literature, it will also be used in this paper.

Student choice to study abroad is often affected by multiple factors. These include language of instruction, quality of programs and tuition fees among others. While some factors remain consistent across the literature, various papers enlist different factors. The overview below will provide the most common factors and mention less commonly used factors at the end.

Pull factor - Language of instruction

The language of instruction is likely to affect students' choice of their study destination and can serve both as a "bridge or a barrier" (OECD, 2013, 2015). English speaking

destinations are the most attractive among the students when measured in absolute numbers. The US, the UK and Australia are the top three destinations for international students, accounting for 35% of students studying abroad. Furthermore, countries with other widely used languages are also popular study destinations. For example, France, Germany and Russian Federation are the next most popular destinations after the US, the UK and Australia. However, these countries account only for 14 % percent of the total student population – less than a half of the share that top three countries attract (OECD, 2015). The dominance of English speaking destinations at least partially indicates "the progressive adoption of English as a global language" (OECD, 2015). Furthermore, it might also reflect that students, who have learnt English at their home country, are interested to improve their language skills by studying in a native speaking country.

Over the recent years many countries have established English taught programs(ETP) at Tertiary education levels.   The proportion of institutions offering ETP varies significantly across the countries though. In Europe, only three countries – Finland, Sweden, the Netherlands - offer ETPs in majority of their HEIs (more than 50%) (OECD,2015). This said, the decline in the US market share for international students is at least partially attributed to the increase in ETPs in countries where English is not their native language (ITA Education, 2016). Thus, the native speaking countries are likely to experience increased competition from non-native countries providing ETPs, especially since non-native countries might offer other appealing conditions such as lower tuition fees or better immigration policies (ITA Education, 2016) that would further intensify rivalry.

Pull factor - Reputations and assumed quality of programs

Students select their destinations by evaluating the quality of the offered programs. Many students gather information from university ranking tables that allow quick and convenient comparison of different programs (OECD,2015). Previous research has indicated a positive relationship between the universities position in rankings and their perceived attractiveness to the students (Marconi, 2013). Furthermore, both in 2009 and 2013 QS graduate surveys "international recognition of qualifications" was the first out of top ten motivations mentioned by students when selecting their study abroad destinations (QS, 2014).

As Knight (2011) indicates, international reputation of the program is often used as a proxy for a quality. It is assumed that universities with more international staff, students and research are of higher quality. However, this is not always the case as internationalization of the university could be affected by "questionable admission and exit standards." Furthermore, she also indicates that the higher education league tables are questionable source of accurate measurement of internationality and quality of the program. However, when students need to process large amounts of information while being aware of its asymmetric nature, they are likely to use rankings as a point of reference until a better option is provided.

Pull factor - Tuition fees and financial support

Tuition fees can represent a substantial proportion of total study costs for international students. Prospective students are likely to evaluate their investment before choosing a final destination, especially because tuition fees and financial aid differs significantly across the countries. In some countries public subsidies are only accessible to national students, and, thus, fees are differentiated for national and international students. Australia is one of the countries with such system. Furthermore, there are cases when financial aid is available to domestic students as well as certain sub-groups. This is the case for the EU, where EU nationals pay the same tuition fee for higher education as the domestic students in the host country. Moreover, some countries do not differentiate between national and international students when setting their tuition fees. For example, in Norway and Iceland higher education at public universities at bachelor's level is free (OECD, 2015).

In the recent years, policies regarding tuition fees for international students have been changing. For example, in 2011 Sweden implemented tuition fees for international students (OECD, 2013) and Finland followed in 2017 (Masterportal.eu, 2016). Norway is currently starting discussions about implementing such fees (Myklebust, 2017). However, increased tuition fees can lead to decrease in international students. After Sweden implemented the tuition fees in 2011, the number of international students applying from outside the EEA and Switzerland declined by 60 %, dropping from 10 234 in 2010 to 4 269 in 2011. This indicates the high importance students place on financial factors. For example, QS graduate survey results indicated that students

considered "scholarship/financial aid availability" as their top 3 motivation for choosing their destination country. Moreover, the importance of financial aid had increased by 1.6% between 2009 and 2013 (QS, 2014).

On the other hand, there are also countries with high tuition fees or recently introduced tuition fees that manage to attract large number of international students. Several countries in Asia-Pacific region have included internationalization of their education in their socio-economic development strategies. As part of their strategies, they have proposed policies that would "attract international students on a revenue-generating or at least a cost-recovery basis" (OECD, 2014a). For example, New Zealand has successfully implemented tuition fees for all international students except those pursuing PhD programs yet the country still attracts a considerable number of international students. Similarly, the US and Australia charge comparatively high tuition fees, but remain a major destination for international students. Both countries have experienced significant growth in number of international students over the past decade (ITA Education, 2016; Group of eight, 2014). These results indicate that higher tuition fees do not necessary discourage students from pursuing their degrees in the host countries as long as the programs and future career opportunities are perceived as worth the investment (OECD, 2013).

Pull factor - Immigration policies

Favourable immigration policies for higher education graduates can make the host countries more attractive to the international students. Such policies increase their job prospects and diversify lifestyle opportunities upon graduation. Several OECD countries have eased their immigration policies in the recent years to "encourage the temporary or permanent immigration of international students" (OECD, 2014b). In Canada and Australia international students are allowed to stay after their studies and look for employment opportunities for three and four years, respectively. Furthermore, Canada created more favourable conditions for students wanting to apply for Canadian citizenship by decreasing residency requirements and taking into account part of the study time (ITA Education, 2016). Many other countries provide similar permits for shorter periods of time. However, in order to obtain the permits, students are often required to find jobs that match their qualifications. Until recently these requirements

were particularly strict in France (OECD, 2014b), but they are being relaxed with an aim to attract more international students (OECD, 2015).

Although immigration is rarely listed as the main reason for studying abroad, the outcomes indicate that it is often part of the consideration. For example, the estimated percentage of Chinese students not returning home after studies in the US range between 66 to 92 % while the percentage for Indian students is between 77 to 88 % (Altbach, 2004). In QS graduate survey "Visa situation" was listed as one of the top 10 motivations for students when choosing their study destinations along with "location of the target school" (QS, 2014). Improved career prospects in a large and dynamic economy is a reason for many students to go abroad (Altbach, 2004). Similar to "language of instruction", immigration policies can serve either as a bridge or a barrier for international students deciding on their host countries (OECD, 2013).

Pull factor - Culture, lifestyle, language and landscape

Obtaining education abroad allows students to "expand their knowledge of other societies, languages, cultures and business methods, and to leverage their labor market prospects" (OECD, 2004). In QS graduate survey "cultural interest and lifestyle" was the second most often mentioned reason to go abroad (QS, 2014) while in the US international student survey "Learn or improve knowledge of a foreign language" and "Interest in foreign culture, history and landscape" were the fourth and fifth most important reasons mentioned by survey respondents (ITA Education, 2016). Preferences for culture, lifestyle, language and landscape can be very personal yet have significant impact on international student choices.

Push & pull factor - Access to desired higher education programs

Access to desired higher education programs can serve both as a "push" factor for home country and a "pull" factor for the host country. Sometimes students choose to go abroad because they are not able to receive desired education in their home country. Altbach (2004) describes it as a "push" factor - students choose to leave their home country not because they are lured by the host country, but because opportunities in the home country are limited, and students are "pushed" away. With demand for tertiary education increasing, not all students are admitted to prestigious universities in their

home country due to limited space and competitive entry requirements (Altbach, 2004; OECD, 2015; ITA Education, 2016) and thus look for alternatives abroad.

Moreover, some students aspire to attend "world-class" institutions, which are not always available at their home countries. Many developing countries offer limited opportunities for higher level studies such as Masters and PhD degrees or these programs are not competitive (Altbach, 2004). For example, the proportion of international students enrolled in highest level of tertiary education is much larger than the average indicators across all levels of tertiary education. In OECD countries international students represent 24% of all students enrolled in doctoral studies or equivalent programs while the average for all tertiary level programs is 9 %.

Additionally, students also leave their home countries when the home country does not offer a certain specialization they are interested in, especially on a graduate and professional level (ITA Education, 2016; Altbach, 2004). Other reasons mentioned for going abroad was "access to specific laboratories/libraries not available in the home country", "get more practice-oriented education than in home country" or "get broader/more flexible education" (ITA Education, 2016). If host countries can offer high quality advanced degrees, relevant specializations and modern equipment, they are more likely to attract international students, thus at least partially turning a "push" factor of student's home country into their own "pull" factor.

Push & pull factor - Social and political forces
Social and political forces can also serve both as a "push" factor for home country and a "pull" factor for the host country. As indicated by Altbach (2004), social and political conditions can "push" students out of their home country. Some countries have discriminatory admission procedures. For example, in Malaysia preference is given to Malay students as opposed to ethnic Chinese students. Furthermore, some students choose to study abroad to avoid political repression, experience academic freedom or escape political turbulences such as student and faculty strikes and government closures of institutions (Altbach, 2004).

On the other hand, political conditions might stimulate students to go to some countries over the others depending on various factors such as the governments' recognition of

foreign degrees, credit transfer opportunities between home and host institutions and opportunities to return home and seek employment. Geopolitical areas such as the EU, NAFTA and regions with historical ties such as former Soviet Union can play a role in students' choice of destination (OECD, 2015).

Remaining push & pull factors

Other factors mentioned in the surveys but not covered in above sections were "proximity to current location", "network creation", "family connections" (QS, 2014), "build international friendships", "develop personality/become more independent", "experience new ways of thinking and acting in the field of study" (ITA Education, 2016). These factors are more personal and can also be influenced by demographic variables. For example, older respondents were more likely to mention "proximity to current location" and "family connections" as reasons for choosing certain study destinations abroad (QS, 2014). Due to the personal nature of these variables, they are not further analysed her. However, more detailed analyses of these variables are recommended for future research.

Summary of analysis

All in all, the above "pull" and "push" analyses indicate that there are many factors affecting students' choice to go abroad. Financial considerations are important, however, if the benefits seem to outweigh the costs, students are willing to move to some of the most expensive countries to pursue their higher education degrees. In other cases, (e.g. Sweden) a significant fall in international student numbers was observed after introducing tuition fees for students outside the EU and EEA. This is likely to indicate that perceived value of the "total package" was not considered sufficient for the required investment. Therefore, governments and HEIs, looking to attract international students, should consider how various push and pull factors interacts with and complement each other, and what might be the total value of those factors for different groups of prospective students.

Recommendations

Good practice recommendations for HEIs

There are multiple reasons why HEIs would be interested to attract international students such as additional revenues, increased awareness of global issues among

students and teachers as well as enhanced international cooperation, capacity building and networking. Similar reasons are cited when explaining why HEIs are interested to invest in their internationalization strategies (Henard, 2012). As previously explained, internationalization refers to "the policies and practices undertaken by academic systems and institutions - and even individuals - to cope with the global academic environment" (Altbach & Knight, 2007). This section will provide recommendations on how HEIs can strengthen their internationalization strategies to make their HEIs more attractive to international students.

In 2012 OECD published a study on "Approaches to internationalization and their implications for strategic management and institutional practice", providing recommendations to HEIs as well as governments. The study encouraged HEIs to:

- Understand the environment affecting internationalisation
- Develop a strategic approach to internationalisation
- Optimise implementation
- Monitor and evaluate (their progress)

The four areas are used as an overall framework for the below recommendations. However, the suggestions provided within the study are prioritized according to the most likely needs of international students.

a) Understand the environment affecting internationalization
First of all, HEIs should identify the internationalization objectives of the government and other relevant actors. The objectives may be linked to enhancing international prestige of national education system, economic benefits or strategies for attracting new talent or be connected to specific programs and policies. HEIs could use this information to plan their internationalization strategies and marketing and communications approach to attract international students.

Secondly, HEIs should identify government policies and regulatory environment that might limit the internationalization within HEIs. The limitations might include financing mechanisms, accreditation, legal arrangements and visa rules. This

information could help to understand which international students to target, and what conditions might be the main barriers for these students. For example, if no financial assistance is available and students have very limited opportunities to work in the host country, HEIs might offer scholarships or on-campus job opportunities.

Thirdly, HEIs should gain deeper understanding about the cultural context of the students' home and host countries. This would help them to better comprehend international student study expectations, prepare them for international experience in the host country and discuss ethical matters (Henard, 2012).

b)   Develop a strategic approach to internationalization

Firstly, after HEIs have gained good understanding of the external environment, they should articulate their own objectives for internationalization, considering how these objectives will complement their overall mission. Secondly, when developing internationalization strategy, HEIs are advised to involve all the key stakeholders to gain diverse insights and strengthen their engagement. Thirdly, HEIs should develop a sustainable business model to support internationalization in a long run (Henard, 2012).

c)   Optimize implementation

First of all, HEIs should ensure that broader institution and department policies are aligned with their internationalization objectives. Secondly, HEIs should communicate the rationale of internationalization to the relevant stakeholders. The third step would focus on HEIs incorporating internationalization aspects into their teaching and learning processes. Finally, HEIs should establish international offices to provide the necessary support to students and staff (Henard, 2012).

d)   Monitor and evaluate

Firstly, HEIs should integrate monitoring and evaluation activities into their strategic internationalization plan. Secondly, HEIs should develop quantitative indicators and surveys to support effective monitoring. Thirdly, internationalization objectives should be incorporated into broader quality assurance mechanisms (Henard, 2012). This would help to effectively evaluate domestic and international student experience and make the necessary improvements where applicable.

Good practice recommendations for host countries (the governments)
The OECD study (2012) also provided recommendations for internationalization to the governments. Focusing on four key areas, they recommend the governments to pursue the following actions:

- Steer internationalization policy;
- Make higher education attractive and internationally competitive;
- Promote internationalization within higher education institutions;
- Optimize internationalization strategies.

a) Steer internationalization policy
Firstly, in order to steer international policy, the governments should develop a national strategy on internationalization and ensure that it is aligned with country specific goals of human capital development. The host countries might keep in mind that attracting international students helps the residents of the country to gain deeper understanding of the world issues and build better cultural understanding. Secondly, the governments, after careful consideration, might want to eliminate some of the barriers to internationalization that unintentionally limit international students from coming to the country such as strict visa regulations and labour market restrictions. Thirdly, the governments could also improve national policy co-ordination between authorities responsible for education, internationalization and related policy areas (e.g. immigration, science and technology, labour and foreign affairs). This would help to ensure that efforts to attract international students by Ministry of Education are not cancelled out by other ministries with unintentionally unfavourable policies for international students in other ministries.

b) Make higher education attractive and internationally competitive
Firstly, in order to make HE attractive to international students, the governments should understand how their education system compares to other systems and establish a reliable comparison. The knowledge about strengths and weaknesses of the national system should be shared publicly in an accessible way (e.g. online platforms) so that international students can evaluate their alternatives and make informed decisions. Such platforms should include information about diploma recognition and credit transfer

among others. Secondly, the governments should encourage HEIs to provide support and assistance to international students prior to their arrival to host country to ensure their successful integration in the social and academic environment.

c) *Promote internationalization within higher education institutions*

Firstly, in order to achieve greater internationalization within HEIs, the governments could promote on-campus internationalization within HEIs. For example, the governments could encourage HEIs to deliver part of their programs in foreign languages, develop language and cross-cultural skills of domestic students living on-campus, consider recruiting foreign academics and provide opportunities for international students to learn the local language. Secondly, the governments could also explore and facilitate online learning opportunities. For example, they could encourage HEIs to record and share their courses on MOOCS, generating awareness across prospective international students. Thirdly, the governments could support mobility of domestic staff and students. This way, both academic staff and students would be able to engage in more meaningful experiences with international students.

d) *Optimize internationalization strategies*

Lastly, the governments could take several steps to optimize their internationalization strategies. Firstly, they could collect various types of data to inform policy making about international experience (e.g. graduate surveys). Secondly, the governments could disseminate the data and share it at international recruitments fairs to attract international students. Thirdly, the governments could agree on international standards for data and indicators on internationalization, allowing comparability across countries. This way, government representatives could learn from comparative studies and understand on which aspects they are good and which require improvement. Furthermore, it would allow prospective international students to make more meaningful comparisons when choosing their destination country.

Conclusion

To sum up, both HEIs and host countries have good reasons to attract international students (see chapter 3 and 4). Furthermore, by understanding the pull and push factors that influence student choice when selecting study destinations (see chapter 5), host countries and HEIs can develop their internationalization strategies. Optimally, these

strategies would be developed in a manner that compliments national strategies while enhancing student experiences and attracting more international students (see chapter 6).

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