INTERNATIONAL TALENT FLOWS IN THE LIGHT OF EDUCATIONAL SYSTEMS OF THE WORLD COUNTRIES

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Abstract
Today we work in the knowledge economy. Whoever owns the information, implicitly has economic power. In this research, we have looked at the migration of human capital and international talent flows through the prism of the educational systems of various countries. The object of our research is human capital, talents and their flows. As research methods we mainly used observation, comparison, analysis, synthesis and inductive reasoning. Inter alia, we have set out to tackle the causes of mass migration, including of the brain drain, and the consequences of these phenomena on the development of various states. We examined how the educational systems of the countries of the world influence the international talent flows, and what is the role of quality education. The paper can serve as an indicative map on the subject of international talent flows and will be particularly useful for researching both the international economic relations, and the global economic issues.

Keywords: international talent flows, talent attractiveness indicators, talent retention and return, educational systems, quality of education, human capital, human resources, brain drain, skilled migrants

1. INTRODUCTION

In the Twenty First century the higher education has definitely got an international dimension. Moreover, internationalization of education has fundamentally changed the landscape of higher education in a relatively shorter period of time than previously.

We chose this topic because we want to understand why, even today, there are still countries that experience critical levels of poverty, a lack of development and education. Education in every sense is one of the fundamental factors of development. No country can achieve sustainable economic development without substantial investment in human capital. Education enriches people’s understanding of themselves and world. It improves the quality of their lives and leads to broad social benefits to individuals and society. Education raises people’s productivity and creativity and promotes entrepreneurship and technological advances. In our point of view, an efficient education system can not only minimize the gap between developed and developing countries, but also achieve the global goals for sustainable development like eradication of poverty and hunger, good health, good jobs, innovation, sustainability etc.

Clearly, highly skilled workers play a central and starring role in today’s knowledge economy and the global society is continuously evolving with emerging countries becoming a new force. In the era of knowledge economy, talent, particularly young graduates, are expected to be mobile and multicultural by their very nature. With various nations investing more in higher education, international talent flows have become an important issue in academic governance.

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The objective of this study is to find out how international talent flows correlate with educational governance in nations, and various models of educational systems.

2. LITERATURE REVIEW

Talent flow is the process by which economically valued individuals travel across countries. Apparently, this process is more influential on global career paths than international personnel movements within global enterprises. As follows, Sari Pekkala Kerr, William Kerr, Çağlar Özden, Christopher Parsons (2016) reviewed the landscape of global talent mobility, considered the determinants of global talent flows at the individual and firm levels and sketched some important implications in this regard [14]. Similar approach is developed in the article of Evie Browne [6]. Her paper lays out the data on when and whether educational services have an impact on people's reasons for relocating.

Michele Tuccio provided a new set of parameters to compare how OECD countries performed when it comes to acquiring skilled migrants: "a new set of indicators aimed at benchmarking how OECD countries fare in attracting talented migrants" [15]. She also built a conceptual framework for studying the issue and describes the variables that were used to create the composite indicators. This raises questions like: Is it important to work on the education system? What is common between International talent flow and educational systems?

3. FINDINGS AND DISCUSSION

The Concept of Talent Flows
Speaking about Talent Flow, we mean the career movements of economically valuable individuals between organizations, sectors, and countries. Individuals with talent and skill play a critical part in a country's future growth. They work in jobs that are critical to innovation and technical progress, which leads to higher economic growth, more job possibilities, and better living conditions for everyone. Countries in the OECD are increasingly competing to attract and keep brilliant people, including by enacting more favourable migration rules for the best and brightest. Although policy frameworks have converged as a result of the competition, considerable variations in policies and practices still exist. Aside from migration conditions, a variety of additional factors influence a country's attractiveness to foreign talent.

Quality of education – an issue of the XXI-st century
Educational systems are viewed as a country's most powerful and important instrument to shape human capital. It is one of the most important variables that condition the ability of a country to participate in international processes. Such variable can be described by means of international comparisons. For instance, educational systems play an important role in determining the level of skill attainment, labour market participation and social equality in countries, as well as cultural diversity, good governance and natural environment. These are considered as determinants that shape the potential of a society [14].

There is a growing realization among the highest policymakers of the world that, despite all efforts to improve education worldwide, there still appears to be a problem with international talent flow. The UNESCO Institute for Global Education has indicated that countries might be missing out on global opportunities as they fail to recognize teaching education as an indicator in their country's economic competitiveness. However, while we are working to create a massive and much-needed shift, we still haven't made even the current education system accessible to everyone around the world: "Of all regions, sub-Saharan Africa has the highest rates of education exclusion. Over one-fifth of children between the ages of about 6 and 11 are out of school, followed by one-third of youth between the ages of about 12 and 14" [16].
According to UNICEF, much more than 72 million children of primary education age literally are not in school and 759 million adults are illiterate and for all intents and purposes do not generally have the awareness necessary to specifically improve both their living conditions and those of their children: "The impact of poverty on education in East Africa remains one of the biggest challenges, combined with huge structural issues such as the lack (if not absence) of employment opportunities for school and university graduates." [8]

Various global indices, like the Social Progress Index and the Human Development Index, reveal that low levels of education are most common in sub-Saharan Africa and South Asia. Sub-Saharan Africa often suffers from unstable economies, conflicts and droughts, which further aggravate the education crisis and poverty levels [5]. An educated workforce is needed to drive long-term economic growth and reduce poverty everywhere. This is why many organizations focus on developing countries, where the level of education is low.

**Figure 1. Literacy rate, 2015**

Source: Our World in Data, Data on Literacy Rate around the World [5]

**Talent Attractiveness Indicators**

The OECD Indicators of Talent Attractiveness [15] are an innovative measure of talent attractiveness that allows states to place themselves on the map for different types of talented migrants and develop effective policies and programs aimed at increasing their appeal to specific high-skilled migrant groups. They were started by a mandate given to the OECD by the 2014 High Level Policy Forum on Migration [15, p 8].

The OECD Talent Attraction Indicators are made up of seven sub-indices, each indicating a different component of talent attractiveness, with an overarching factor of national accessibility in terms of migration laws thrown in for good measure. Main initiatives on measuring talent attractiveness are:

- Global Talent Pyramid Model, built to gain a rough idea of a country's capacity to recruit international talent [15, p 10].
- Global Talent Index, which compared the capacity of 60 countries to develop, attract, and retain talent, to assess a country's ability to produce talent, its capacity to develop talent, the environment for a competent workforce, and its proclivity to nurture competitive and globally-oriented business [15, p 10].
- IMD World Talent Ranking, an indicator that measures a country's capacity to attract and retain the talent pool available to businesses [15, p 11].
- Global Talent Competitiveness Index, based on an input-output model, which considers what countries are doing to generate and obtain talent (input) as well as the types of skills accessible to them (output) [15].

**Become an international talent is a way to provide capable people with a better life**

How do we make it easier for students around the world to access education and training? Can technology play a key role in enabling student learning? How can countries, especially developing countries, retain the best talent to ensure economic progress?

Global educational opportunities play an important role in unlocking the potential of students and realizing lifelong learning, preparing future generations for the challenges and opportunities of a rapidly changing and disruptive world.

Despite the overall increase in student mobility and the emergence of new destination countries, the global movement of graduate students remains a surprisingly one-way phenomenon: students from developing countries, or the Global South, transfer their knowledge and talents to developed countries. "The global distribution of talent is highly skewed and the resources available to countries to develop and utilize their best and brightest vary substantially. The migration of skilled workers across countries tilts the deck even further." [14].

Added to this is the fact that the more educated a person is, the more likely s/he is to leave the country and go abroad, which worsens many of the pre-existing inequalities and leads to brain drain.

**Figure 2. Educational profile of migrants of selected countries**

*Source: UNESCO, Data on educational composition of migrants of selected countries [3, p 17]*

Many large sending countries have begun to focus on expanding the capacity of their higher education systems to retain their students. Retention approaches and policies aim to provide sufficient and high-quality higher education seats to prevent high levels of student migration in the first place. "Talent in emerging economies is scarce, expensive, and hard to retain," reads a recent McKinsey & Company report [17, p 4]. "The first imperative for policy makers is to create opportunity and a critical mass of the educated and entrepreneurial. Taiwan’s example is particularly instructive. Aided by a growing economy, Taiwan has been able to stem the flight of its top talent. The country forged business-friendly policies that encouraged entrepreneurs to stay and emigrants to return. It founded the Hinschu Science-based Industrial Park in 1980, with the goal of replicating the density of talent found in Silicon Valley and other hotbeds of technological innovation." [17].
Countries are also offering incentives for their foreign-educated talent to return home. Han et al. [5, p 13] identified 18 countries with programs designed to attract expatriates. Examples include China’s Thousand Talents Plan, launched in 2008, that provides incentives for Chinese scientists and other experts living abroad to return to China: "The Thousand Talents Recruitment Programme (1,000 Talents Plan) is a programme established by China’s central government in 2008 for recruiting high-level scientists and talents from overseas." [2].

Because of the links of global migration flows to employment and higher education opportunities, firms and universities also act as important conduits, making employment and admission decisions that deeply affect the patterns of high-skilled mobility. There are ongoing efforts in many countries to tweak their immigration policies concerning high-skilled labour to tilt the social cost-benefit calculations in a more favourable direction.

Many origin countries have limited educational capacities and fiscal resources to train workers or to replace those that have emigrated. Countries experiencing particularly high emigration rates of high-skilled workers to OECD destinations in 2010 tend to be small low-income countries and island states, such as Guyana (93 percent), Trinidad and Tobago (68 percent), Barbados (66 percent), Tonga (53 percent), and Zimbabwe (44 percent): "Studies have found that more well educated individuals are much more likely to leave." [17].

We can see the inverse relationship between country size and high-skilled emigration rates. Emigration rates are also decreasing in higher GDP per capita, and these patterns are much starker for high-skilled migration than for overall flows [14, p 6]. These movements of high-skilled labour away from certain small and low-income countries have raised controversies about “brain drain”.

Another issue is that a substantial share of high-skilled migration is connected, at least initially, to differences in educational opportunities. Many “skilled immigrants” arrive with only raw talent and ambition, with the aim of improving their human capital level through formal schooling or by learning on the job. Moreover, schooling can provide an important entry point into desired labour markets for talented individuals.

![Figure 3. Emigration Rates of High-Skilled Workers by Population](http://ftp.iza.org/dp10328.pdf)

Recently literature on globalization and international academic mobility has noticed the ability of individuals, especially highly scaled personnel with marketable expertise, to move freely in the international labour market and therefore the intensified worldwide competition for "brain gain".
The competition for global human capital starts with international students and scholars. These individuals are often seen as globally mobile resources and intangible assets that enhance a nation's global competitive advantage, and thus a vital component of human capital, providing the knowledge and skills on which nation states rely for their economic development. Due to worldwide educational inequality, developed countries possess advantages that attract talented academics from developing countries.

**Distribution of human resources and human capital**

Human Resource is simply human potential. Potential with infinite capabilities and capacity with the possibility of beneficial engagement. However, an opportunity has to be seized to translate potential into real value. Human Resource is a question of physicality.

Human Capital is a well employed human resource that is actively engaged in meaningful, worthwhile work and delivering some level of desired productivity. Human Capital is a question of factoring knowledge and application to physicality [4]. It is a true fact that most resource-rich countries are actually poor, but then we wonder why this is so, and why their current situation does not change over time? Despite the fact that most of the poor countries have human resources which could have helped them to improve their economic situation, the opposite is the situation.

For instance, the Sub-Saharan African countries, like Nigeria, Liberia, DRC but also Venezuela, Russia possess a lot of resources and yet more than half of their population lives on less than a dollar, have poor transport systems, don’t have access to clean water and sanitation, don’t have access to electricity and have poor education and health facilities [14].

With regard to education, we can note that there is a 100-year gap in education standards between developed and developing countries "For all the progress in improving educational outcomes among African-American children, the achievement gaps between more affluent and less privileged children is wider than ever" [10].

Studies found that only four OECD countries are the landing destination for nearly 70% of the 28 million migrants: "Over the last 15 years, there has been a continuous increase in the level of education of immigrants residing in OECD countries, and a simultaneous decline in the proportion of poorly educated immigrants" [9].

Furthermore, United States alone has historically hosted close to half of all high-skilled migrants to the OECD and one-third of high-skilled migrants worldwide. In 2010, the United States hosted 11.4 million skilled migrants, 41% of the OECD total [14].

The reason why people migrate is usually related to economic opportunities. Therefore, countries with high wages are a magnet for migrants, and when choosing a country, the main focus is on the factor of high wages.

Immigration decisions aren’t based only on economic factors, but also on immigration policy, as well as on “parental motivation” (parents’ concerns about their children education achievement). Due to the fact that many students are immigrating to other countries, this flow is associated with a decrease in the resources and quality of schools.

Young people move to other countries not only to earn money and gain new experiences, but also to escape the pressure of family living away from their parents. For young men, going abroad means escaping parental control over their behaviour and lifestyle; for young women, it means being able to work and move freely outside the home. Migration can also be used to avoid the social pressures associated with marriage.

It might be claimed that comparing mobility statistics in origin and host nations provides an incomplete picture, because students from developing nations have different motives than students from rich ones. Professional development, wages, employment, networks, and socioeconomic and political conditions in the countries of origin were identified as five common causes of mobility in a meta-analysis of work that looked at the trends of potential migrants from 28 predominantly developing countries in Eastern Europe, Asia, Latin America, the Caribbean, South Asia, and Africa [5, p 12].
When speaking about the students from India, their primary motivation for going to countries such as the U.S. and the U.K. is not necessarily the chase of cultural exchange or the wish to learn a foreign language, but is rather a set of much more realistic considerations driven by the insufficiency of adequate seats in high-quality Indian colleges and universities as well as the desire for professional advancement and development. "Since the early 1990s, educational institutes in countries like Britain, USA and Australia have vigorously attracted students from countries like India, turning education into an export product. In many parts of India, education has come to be viewed as the easiest and fastest route to go abroad." [13].

Oppositely, student flows between developed countries, such as between Europe and the U.S., are often pursued for reasons such as mutual and cultural exchange, science diplomacy, and the overall Western philosophy of broadening one’s perspective. The first group of students from developing countries is driven by educational needs, lack of access and the pursuit of opportunities; the second group is driven by the objectives of enhancement and enlargement [6].

The push factors for students from the Global South (low-income countries) to return home, are solid career opportunities and decent wages combined with attractive family connections and a foreign education. As a result, a three-part framework can be analysed, in order for home or sending countries to retain their students: RETENTION, RETURN AND ENGAGEMENT [5].

Retention of talented students
Many large sending countries have begun to focus on expanding the capacity of their higher education systems to retain their students [5, p 12]. Retention approaches and policies aim to provide sufficient and high-quality higher education seats to prevent high levels of student migration in the first place. This is the kind of recent expansion seen in both China and India with the emergence of new public and private universities seeking to rank among the top universities [11, p14].

However, the demand continues to surpass supply (as evidenced by the large numbers of students from both countries that continue to go overseas), and a lack of regulation and quality continue to be issues. "Between the years 2000 and 2014, the number of students going out from China increased about twelve times, while it increased about four times from India. This outflow has become a major source of brain and capital drain for both countries. Each country has adopted separate strategies to address this issue. China opened up its education sector and as a result is gradually emerging as a major hub for education. India adopted a rather inward looking approach for a long time and is still grappling with some basic issues in its education sector."[2].

Return of the foreign-trained talent
Aside from retaining talent at home, many countries are also encouraging their foreign-educated individuals to return home. For instance, different countries have launched various programs to attract expatriates. Examples include China’s Thousand Talents Plan, launched in 2008, that provides incentives for Chinese scientists and other experts living abroad to return to China. "The Thousand Talents Plan incentivizes individuals engaged in research and development in the United States to transmit the knowledge and research they gain here to China in exchange for salaries, research funding, lab space, and other incentives."[11].

Over the past decade, the Chinese government has refined its centrally organized foreign talent recruitment plans into a strategy to “use talent to strengthen the country” by targeting the specific technology sectors.” [2]

“These plans help facilitate technology transfer and typically include people-to-people exchanges, international S&T cooperation projects, and the recruitment and repatriation of S&T experts on a temporary or permanent basis.” [18]

In 2018, 12 universities in Shanghai and other cities in China launched a joint initiative to attract professors from the US. "China openly recruited U.S.-based researchers, scientists, and
experts in the public and private sector to provide China with knowledge and intellectual capital in exchange for monetary gain and other benefits."[11]. According to a recent report, 432,500 students returned to China after graduating from overseas universities in 2016, up 36 percent from 2012 [7].

The Global Initiative of Academic Network (GIAN) is a unique initiative designed to connect Indian universities with the world's best scientific and technological talent. Through this scheme, Indian institutions are also looking to attract faculty from abroad. The returnees are also expected to influence the returnees' peers and others to return [5].

Other low- and middle-income countries are attempting to tap into the intellectual diaspora by fostering collaborative research, recruiting investment, sponsoring academic groups, and other strategies. Successful programs assist local talent in obtaining the skills they require in their home nation. South Korea, Turkey, Scotland, and other countries have adopted similar programs to reintroduce their talents [5].

**Networks and engagement of talents**

Strategies are designed to enable highly-educated individuals to connect with like-minded individuals and engage in activities that will benefit their home country. For instance, the Singapore government has launched various initiatives to re-establish the country's identity and attract more international students. Singapore's Prime Minister Lee Hsien Loong said the island nation should welcome foreign talent to realize its goal of becoming a technology centre [5, p 13].

Globalization has certainly affected universities and academic systems globally. The rise of the internet has made it easier for academics to collaborate and communicate. The proportion of research conducted in more than one country has also increased. The increasing number of distance learning institutions and joint degree programmes has raised concerns about the viability of their operations.

**4. CONCLUSIONS**

To conclude, human resources are more numerous in developing countries, while human capital is more concentrated in developed states. Therefore, in the developed countries it is easier for human resources to get necessary skills in order to become a talent. In poor countries, the lack of education impedes individuals to develop and as a rule, they prefer to leave their home country and look for better conditions.

Talent Flow refers to the career movements of highly skilled individuals between countries and organizations, which is quite significant. As a result, they play a critical role in the country's future growth. We also have noticed that there is a gap of 100 years between the educational standards of developed and developing countries. As a result, the differences in achievement between the less privileged and the rich have widened.

Admission decisions taken by companies and universities regarding students and employees have a significant impact on highly skilled migration patterns. When people travel internationally for work or study, they generally do so because they literally are capable of making the decisions that are best for themselves and their families. If opportunity in one country is fairly better than in another, it seems reasonable for people to prefer one to the other.

Additionally, we have shown how low and middle-income countries are trying to capitalize on the intellectual diaspora. By recruiting and sponsoring academic groups, universities, and other institutions, these efforts help local talent acquire the skills they need to live in a big academic centre.

Nevertheless, despite the rise of new destination countries, graduate students from developing nations continue to transfer their knowledge and skills to developed nations. The global
distribution of talent is heavily skewed and the lack of skilled workers in many countries is threatening the stability of their economies.

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