



Interdependence of International Educational Flows and Countries' Economic Development:

Issues of Statistical Approach

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Abstract

At present moment most countries in the world are in difficult geopolitical and economic conditions. Globalization processes are coming to the local and regional levels. However transnational corporations are acting globally and conquering for the markets, looking for the suitable personnel worldwide. In this research we are considering the interaction of labour market, education and real sectors of economy. The interdependence regulations are defined between the program choice made by the international students from the developing countries coming to study to the developed countries and the perspectives of future economic growth of their home countries where they return.

Keywords: labour market, education systems efficiency, forecasted economic development, cognitive consumer behavior.

1. Introduction

Globalization is entering a new phase with the regions united in various clusters, organizations and unions. Factors bringing the countries together depend on the goals the participants want to achieve. World international organizations classified due to various political, economic and cultural reasons are based on creating the mutually beneficial development factors contributing to the interaction in the certain branches and activities. Simultaneously, on one hand we observe the concentration of cross country links and interaction, and on the other countries are getting more separated.

The situation mentioned above is having a considerable influence on the interaction in the sphere of global business, labour market, institutional cooperation in the sphere of higher education, experience exchange.

Transnational corporations are operating worldwide, competing for the bigger market share and consumers loyalty. To provide the necessary quality of goods and services they need personnel able to operate due to standards set by the companies' headquarters and not the place where production or subsidiary is located. Globally there is a tendency for the unification of competences and knowledge the graduates should have.

We see that internationalization in the sphere of higher education that is mainly accomplished through student and academic exchange, joint research and educational programs, internships, scientific and practical conferences, on one hand is the consequence of labour market development and business collaboration between the countries, on the other, it influences the efficiency and future development of these processes.

There is a necessity to make the qualitative research of these processes as their influence will increase in a long-term perspective. These processes have their own statistical regulations with a situational character.

2. International comparison of higher education systems efficiency (Russia, Great Britain)

There has been accomplished a comparative analysis of the undergraduate and postgraduate educational systems of Russia and Great Britain for the period 2006 - 2010.

Research results:

A complex method of international comparison of the systems of higher professional education was developed and tested.

There was given a qualitative evaluation of the interdependence of graduates employment and the distribution of students due to study programs and forms in the comparative aspect for Russia and Great Britain.

A complex comparative analysis of the higher education structure and educational institutions classification in European and Russian systems was accomplished, higher educational institutions (HEIs) were grouped in clusters.



There was developed a system of statistical indices appropriate for studying the influence of the student cohort due to gender, citizenship, higher educational institution choice, study level, program and form on their future employment.

Comparative statistical evaluation of the interdependence of the student cohort and their future employment was accomplished on the base of correlation-regressive analysis.

The indices of direct and reverse influence were revealed on the base of the developed econometric model and its statistical parameters.

The efficiency of higher education systems in Russia and Great Britain was evaluated.

This research was reasonable as the processes in the sphere of higher education were comparable, and were not influenced by the geopolitical separation of countries and their cooperation in the cross-country economic unions. Since 2013 the situation has changed during a very short period.

3. Current situation at global education and labour markets

In a new format Eurasian Union is interacting, collaboration between Russia, China and India is getting stronger, while there is less intensive cooperation between the Russian and USA markets, as a consequence of the Ukrainian crisis. However, top world businesses are still seeking the well-trained personnel to develop their business worldwide.

The disproportion at the labour market is evident and could be predicted for the next few years due to the surfeit of low qualified personnel and the lack of highly qualified and qualified ones.

In Table 1 the information about the largest economies is represented based on GDP data from World Economic Outlook Database, October 2016 (International Monetary Fund).

Table 1

Gross domestic product, current prices in 2013-2020 (U.S. dollars)

Country	2013	2017	2020
United States	16691,5	19377,2	21926,51
China	9635,207	12361,74	16458,03
Japan	4908,863	5106,259	5506,436
Germany	3753,687	3618,621	4007,765
United Kingdom	2721,489	2609,912	2927,636
France	2809,39	2570,023	2850,668
India	1863,207	2457,748	3297,453
Brazil	2464,688	1953,861	2213,76
Italy	2130,997	1895,318	2045,978
Korea	1305,605	1521	1746,814
Russia	2230,624	1442,406	1698,192
Australia	1505,755	1343,608	1574,192
Mexico	1261,983	1124,316	1324,518
Indonesia	914,552	1014,867	1273,809
Turkey	823,025	769,474	912,534
Argentina	611,471	594,975	773,445

However, the leading economies of the world - the key players (countries represented in Table 1) are having different education strategies. We see this by analyzing the OECD data of private and public expenditures for tertiary education (see Fig. 1, Fig. 2). The indicator is shown as a percentage of GDP. Public spending on education includes direct expenditure on educational institutions as well as educational-related public subsidies given to households and administered by educational institutions (Fig.1).

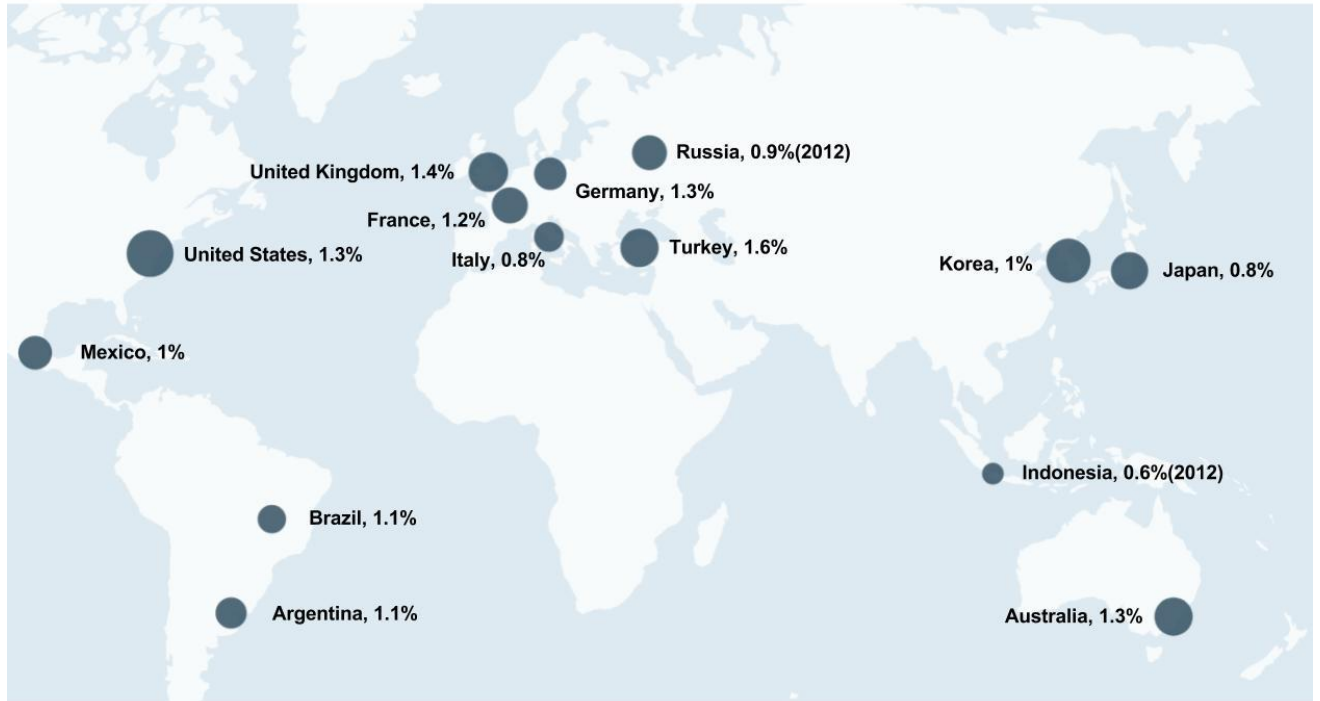


Fig.1. Public spending on tertiary education in 2013, % of GDP

Private spending on education refers to expenditure funded by private sources: households and other private entities. (Fig. 2)

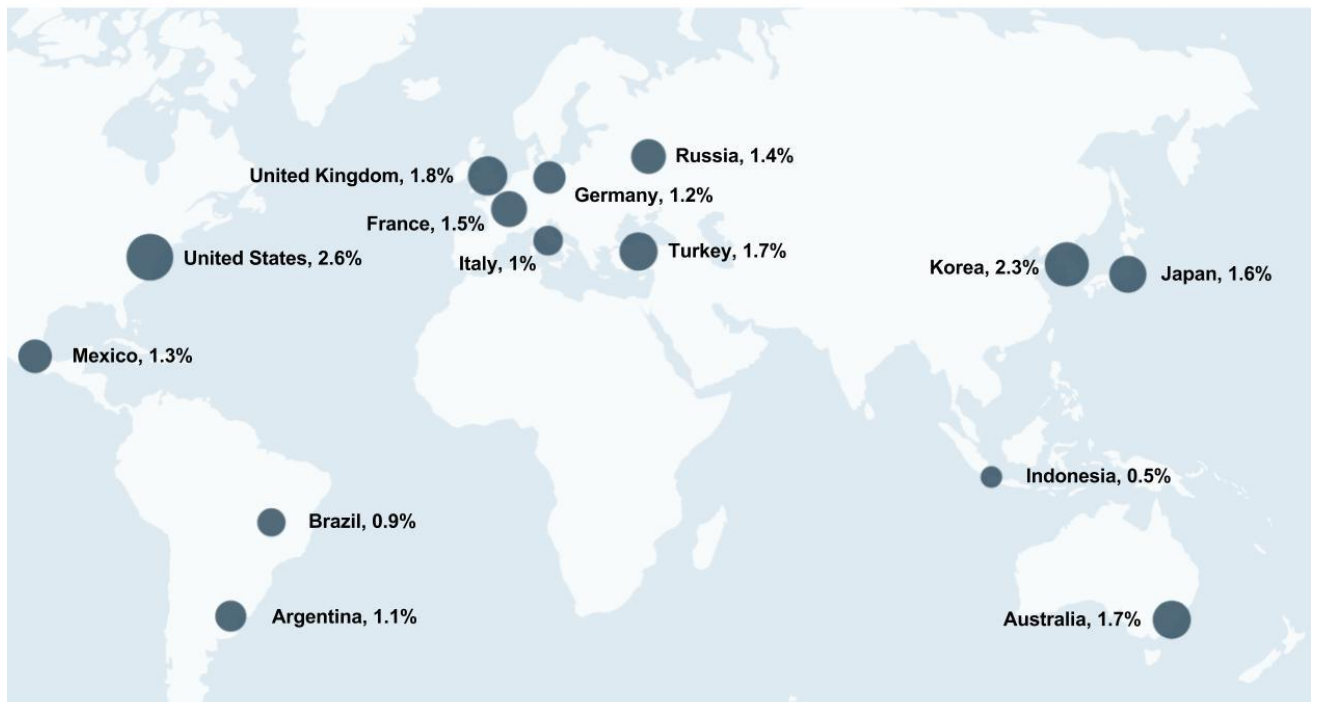


Fig. 2 Private spending on tertiary education in 2013, % of GDP



Jandhyala B.G. Tilak in the book “Education, society and development. National and International perspectives” demonstrates the correlation between the economic opportunities and educational levels. People from the low income group mainly with primary and non-formal education have a small access to economic opportunities, while higher income group despite its small size has access to more extensive economic resources and opportunities that is provided by their higher education. Middle income group is usually represented by semi-skilled and skilled jobs, qualified staff.

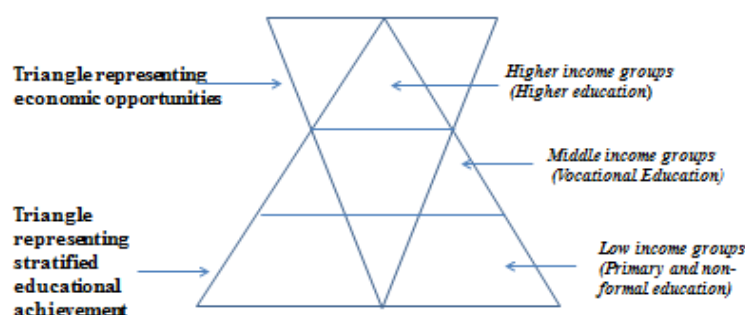


Fig.3 The diagram representing the inverse relationship between the social class and educational achievement and economic opportunity.

The diagram in figure 3 could be as well used to describe the correlation of the levels of countries' economic development and education programs represented there. However, there is a necessity to accomplish further research: distinguish the quantitative regulations of the dependency of the choice of education programs made by the students from the developing and 3rd world countries coming to study in the developed ones and the forecasted perspectives of the economic development of these countries. These two issues are proved to be closely related.

Nowadays there is a tendency that the citizens of less developed countries having the knowledge and skills to apply for grants or money making possible to pay for their education are moving to the developed countries providing high level education. They choose spheres and occupations that they think will have the highest demand in a 4 – 6 year period. As a result a complex scheme of interaction could be observed, on one hand, this is the influence of global and national economic processes, the forecast for the perspective branches and professional competences that could be in demand. On the other, this cognitive consumer behavior has great influence on the countries' development, as in case the expectations reach the target, the students returning back to their home- country with the necessary competences stimulate the economic growth in the particular sectors.

1. international student cohort coming to study to the developed countries due to gender, citizenship, higher educational institution choice, study level, program, form;
2. share of graduates returned to the home-country, employment percentage, employment in the spheres of specialization due to Major that was chosen (lag – 4 years), home-country economic growth (lag 8-14 years) depending on the growing number of graduates returned to the economy – correlation coefficient.



4. Conclusions

We emphasize the importance of the current study being accomplished: the student and professional staff exchange flows in the education and labour markets and its mass effect on modeling the countries' economic growth. The interdependence of the following blocks of indices is considered:

References

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