HUNGARIAN HIGHER EDUCATION-SUSTAINABILITY

Empirical study

Keywords
higher education
number of students
budgetary expenditure
sustainability

JEL Classification
C70, P36

Abstract

Nowadays, the sustainability already goes far beyond the aspects of environmental protection; the knowledge and the education are also part of the sustainable development. In the field of education, a condition of realizing the sustainability is that the state should ensure a predictable and stable budget for the operation of institutions. Aim of the treatise, at first, is to examine the fulfilment of Europe 2020 Strategy objective affecting the higher education directly and then, based on statistical data, to present the trend in number of students of the Hungarian higher education and its composition by regions and to examine the change in the budgetary support. In order to retain the sustainability and competitiveness, the state and the institutions should make efforts to harmonise their sources and expenditures and to ensure a predictable, stable financial environment for the sector and its stakeholders.
1. Introduction
We could initially hear about the sustainability in the field of environmental protection only. The report of Worldwatch Institute about the processes leading to a sustainable society was published in 1991; it primarily draws the attention to the development in major indicators of the sustainability of environment and to the seriousness of environmental nuisances. (Brown, 1991) Betwixt the new indexes of development, the report mentions the Human Development Index (HDI) as an index of the sustainability that can be defined by considering more factors such as the lifetime, level of knowledge and the material resources being required for a decent life. Therefore, the sustainability is far more than the environmental protection, this is an extremely complex concept and it can only be interpreted globally and the knowledge also appears in it. Today, it is already known that the sustainability is realized as a result of a coordinated operation of the environment, society and economy. According to Bessenyei (2013), the system-based thinking and governing is essential for the realization; its institutional and governmental embodiment is the institutional system integrating every dimension of the sustainable development.

The interest of all members of the society is that the higher education should be effective and sustainable. The work of persons learning and working in the higher education is a long-term process and its result is refunded in the long term. Essence of the sustainability is that the short-term interventions should not endanger the long-term operability of institutions. The state can also ensure the stability and the safe operation by renewing its own structure: by sustainable and controlled public financial affairs, including the stable budget, the transparent, predictable and equitable tax system etc. (Korencsi, 2014)

Nowadays, in addition to the sustainability, competitiveness of the institutions has a major role as well. Extraordinarily complex and coordinated systems are operating behind the international or national ranking list of universities; the ranking list is a kind of measure. It is important to study the world ranking lists, we need to know our place. To get among the best universities can reflect quality or competitiveness equally. (Török, 2006) However, we know that the competitiveness, everywhere in the world, can be increased in the short-term for example by reducing the tuition fee but it does not result in a quality improvement.

According to the opinions of the authors, the Hungarian higher education should primarily compete in the European Higher Education Area with a view to the objectives of the Europe 2020 Strategy as well as the Bologna requirements under the Bologna reform, knowing its advantageous and disadvantageous effects.

2. Europe 2020 Strategy
The domestic and international experiences show that a large part of young people can obtain the first higher education degree by the age of 30, despite the extension of the learning age. Europe 2020 Strategy inter alia aimed at increasing the number of graduates and reaching the rate of 40% in age-group between 30 and 34 years. According to it, 40% of young people belonging to this age-group should have higher education qualification in the future. The EU has significantly approached its objective stated already at the beginning of period, the number of persons having higher education qualification has also increased. Performance of the 28 union countries in 2014 is separated from the Europe 2020 Strategy's objective of 40% by 2.1 percentage point only (Figure 2). These figures buttress up the assumption according to which the proportion of the EU population is increasing continuously which studies in order to achieve a higher qualification. Number of the students taking part in the higher education was 20.0 million in the EU-28 countries in 2012. (Eurostat, 2014)

According to statistical data of 2014, in the age-group examined, the most graduates live in Lithuania where more than half of the age-group i.e. 53.3% have higher education qualification. Luxembourg is the second with 52.7%, the third one is Cyprus where 52.2% of the persons between 30 and 34 years are graduates. In 2014, the union expectation of 40% was reached by 16 countries. The file-closer is Turkey where 21.5% of the people are graduate which is overtaken with 23.9% by Italy and with 22.4% by Rumania. Hungary is located at the third phase regarding the target value. According to some estimation, the number of people educated should not be increased in order to reach the target value because the rate of 30-34-year-olds will statistically grow within the entire population expectedly by 2020, at the same time, the rate of age-group between 20 and 30 will decrease so the demographic change itself will solve the task.

Table 1 shows the change in number of students between 2000 and 2013 in those countries where the rate of 30-34-year-old graduates exceeds the 40% drafted by the union strategy. Between 2000 and 2010, the number of students grew in every country but the extent of increase shows deviates significantly by countries (about 10 and 40%), 65% in Lithuania, 300% in Cyprus. After 2010, number of students also increased in most countries, a few percent decline can be observed only in some countries.

3. Trend in number of students in the higher education
In the Hungarian higher education, the number of university student has continuously increased since the beginning of 90s; their number has increased
almost fourfold in Hungary. This process can statistically be characterized by the increase of absolute number of the people taking part in the higher education as well as by the increase of rate of people having higher education qualification within the population and the increase of the relevant age-group’s rate of getting into the higher education. In this period, the challenges of economy and society as well as the significance of the highly qualified labour force have been recognized. The enlargement and growth of the higher education institutions have been incited in part by administrative state funding system and in part by headcount-based state funding system. Veres (2012) names this process an absolute and relative massification being specific to the higher education. The state responded with austerity measures to the difficulties occurring as a result of the so-called mass education and then the financial crisis of 2008. This resulted in the fact that the decrease was initially caused by the decline in number of students taking part in evening, correspondent and distance-learning educations. Since 2010, the decline has already spread over the full-time education as well and the process cannot necessarily be explained by the deterioration of attractiveness of the higher education. (Veres, 2012; Ladányi, 2014)

In 2012, the higher education policy introduced two important changes, its aim was to modify the internal composition of higher education and not the total number of students directly. One of these changes was aimed at modifying the proportions within the training areas. Two elements of the tool system: changing the quotas and modifying the supporting system. There were an increasing in frame number of students in the natural science, technical, IT and life science majors but this involved that the number of state-funded places has decreased and been almost fully reduced in the legal, business, economic, arts majors. Besides the training areas preferred by the state, there were no alluring jobs, payments and enticing labour market forecasts (Temesi et al.,2013). However, according to the statistical data, the number of students has not increased in these majors but the state would finance it. In those majors where the state aid has ceased, a potential student can choose an education financed by the state but the practice shows that he/she rather pays but does not change career, he/she wants to be graduate in law, economics etc. The state tried to keep students, mainly doctors, in the country by student contract but this failed to achieve the expected results. The working abroad of young graduates does not decrease, moreover, it continues.

Figure 1 contains the change in number, composition of students participating in bachelor and master education and the change in rate of number of full-time students 2005 to 2014. While the number of students in the higher education is increasing in most countries of Europe, a process being against the European tendency has started in our country. The number of persons learning in bachelor and master education was 380 thousand in 2006, it was already 328 thousand in 2009 despite the fact that the education was free that time. Firstly, only the number of participants in the correspondent and distance-learning education decreased but, from 2009, the number of students in full-time education also decreased from 222 thousand to 203 thousand persons that means an almost 8.5-percent reduction nationwide. In the period examined, the rate of full-time students within the total number of students was continuously increasing from 57% to 75%. The number of foreign students was still 10 thousand persons in 2009 and it was already almost 22 thousand persons in 2014; their rate increased from 6.4% to 10.6% nationwide. Regionally, their rate within the full-time students shows significant differences by institutions: it is very high at the universities of Budapest, especially 24% is peculiar to the Semmelweis University, but it hardly exceeds the national average at University of Debrecen having a wide profile. Here, it is to be mentioned that, in the common knowledge, the tuition fee paid by the foreign students means an important source of revenue concerning the management of institutions. We have to agree with the statements of Szatmári and Suha (2015) that the process of internationalisation of the Hungarian higher education, in form of side-effects, can make an effective contribution to the achievement of the Hungarian economic diplomacy goals. In the future, the offer of our universities and colleges and the related domestic services need to be reckoned as a fundamental device for building external economic relationships; the foreign students mean an important international social capital for the country.

After the crisis, the number of students in the higher education decreased by 9.5% between 2008 and 2014 but essential differences can regionally be experienced according to the place of education. (Figure 2)

By examining the statistical area units of the country, it can be stated regarding 2008-2014 that there was a five-percent growth in number of students at the universities of Budapest and of Pest County while the provincial universities had to face with a significant decrease in number of students: 49% in Central Transdanubia, 24.6% in Southern Transdanubia, 31.2 % in Northern Hungary, 18.5% in Northern Great Plain and 15.6% in Southern Great Plain. There is a sharp contrast considering the number of students in the region of Central Hungary and other six regions of the country. The decisive role of Budapest is indisputable, 56% of the students participating in full-time education...
learned in the institutions of Central Hungary in 2014. The regions increasingly recognize that the education is an important element of the self-development. The so-called “regional university” organizes the local or sub-regional initiatives, plays an integrating role and adjusts to the demands of the local-regional economy and the society. (Khademi-Vidra, 2014) Can Southern Hungary be imagined without the university of Pécs or Szeged, Eastern Hungary without the university, college of Debrecen or Nóregyháza? These are such values for the society and the nation which can occasionally be reached only during a purposeful and coordinated work of centuries, decades. The higher education should not be handled as a funding issue.

4. Expenditure spent on the higher education
The GDP proportionate budgetary expenditures measure the change of state “investments” invested in the human capital i.e. how much a country spends on financing the higher education in comparison with the country’s economic opportunities.

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The budgetary expenditures spent on the higher education in percentage of GDP had been about 0.7% between 2005 and 2007 then it continuously decreased and was already 0.43% in 2013 which is far below the 1.3-percent average of the European countries and the 1.6-percent average of the OECD countries. According to the data of Figure 3, it can be seen that the budgetary contribution of higher education had significantly regressed in 2009 after the crisis then it reached the level before crisis (HUF 189.2 billion) by 2011. In 2012, the budgetary contribution of state decreased to HUF 157.5 billion in 2012 and to HUF 125.5 billion in 2013, which is equal to an almost 22-percent as well as 20-percent reduction. The large-scale and fast withdrawal of state resources from the higher education leads to the so-called “self-sustaining higher education”. After several years, amount of the budgetary contribution was HUF 136.7 million in 2014; this means an almost 9-percent increase compared to the previous year which, based on statistical data, can start a favourable process in the sector.

The decrease in number of students is due to, in one respect, demographic reasons, on the other hand, the substantial reduction of funding. We can see on Figure 4 that the decrease of state sources exceeds the decrease in number of students of higher education in the years of 2011 and 2012 thus the amount of state contribution per student has also decreased significantly. Generally speaking, there is a very positive coherence between the measure of GDP per capita and expenditure per student which can be said for most of the developed countries as well even if greater or lesser differences can be observed. However, this is in contradiction with the tendency existing within area of funding of the higher education.

5. Conclusions
Today, nobody has to be convinced of the importance of lifelong learning. Despite the results of recent decades, the higher education of Hungary lags behind the EU member states in several areas and the pace of catch-up is inappropriate. Based on statistical data, it can be stated that in those countries where the rate of graduates among 30-34-year-olds reaches the objectives of the EU, the number of students in the higher education has continuously grown in most countries as well. In Hungary, after the growth in number of students existing for years, there was a significant decline in 2010. The cause of the decline is owing to, in one respect, the state measures, on the other hand, the demographic changes. The reduction of state budgetary sources in the funding of higher education or the total withdrawal in some areas has forced the higher educational institutions into rethinking the structure of management and education.

In order to retain the sustainability and competitiveness, the state and the institutions should make efforts to harmonise their sources and expenditures and to ensure a predictable, stable financial environment for the sector and its stakeholders. Furthermore, the universities should send forth such a trained professional cadre into the labour market which is demanded by the economy i.e. a great emphasis should be placed on the consonance of the higher education and the labour market in the changing market environment as well.

Change and stability, innovation and tradition, value system and creativity are parts and also drivers of the sustainability and competitiveness. The appropriate language, communication, operation of information channels and the feedback are required between the stakeholders.

Reference list


II. Eurostat (2014):
http://ec.europa.eu/eurostat/web/europe-2020-indicators
### Appendices

**Table 1. Students in the higher education (2000–) thousand head**

<table>
<thead>
<tr>
<th>Countries</th>
<th>2000</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tr>
<td>Belgium</td>
<td>355.7</td>
<td>445.3</td>
<td>462.4</td>
<td>477.7</td>
<td>488.5</td>
</tr>
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<td>Cyprus</td>
<td>10.4</td>
<td>32.2</td>
<td>32.1</td>
<td>31.8</td>
<td>32.0</td>
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<tr>
<td>Denmark</td>
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<td>240.5</td>
<td>258.9</td>
<td>275.0</td>
<td>291.4</td>
</tr>
<tr>
<td>Estonia</td>
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<td>69.0</td>
<td>69.1</td>
<td>67.6</td>
<td>64.8</td>
</tr>
<tr>
<td>Finland</td>
<td>270.2</td>
<td>303.6</td>
<td>308.3</td>
<td>308.9</td>
<td>309.0</td>
</tr>
<tr>
<td>France</td>
<td>2 015.3</td>
<td>2 245.1</td>
<td>2 259.4</td>
<td>2 296.3</td>
<td>2 338.1</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>487.6</td>
<td>650.9</td>
<td>780.0</td>
<td>793.7</td>
<td>674.8</td>
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<tr>
<td>Ireland</td>
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<td>194.0</td>
<td>196.3</td>
<td>192.6</td>
<td>199.4</td>
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<tr>
<td>Poland</td>
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<td>2 148.7</td>
<td>2 080.3</td>
<td>2 007.2</td>
<td>1 902.7</td>
</tr>
<tr>
<td>Latvia</td>
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<td>103.9</td>
<td>97.0</td>
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<tr>
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<td>201.4</td>
<td>187.1</td>
<td>175.1</td>
<td>159.7</td>
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<td>Luxembourg</td>
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<td>..</td>
<td>5.4</td>
<td>6.1</td>
<td>6.6</td>
</tr>
<tr>
<td>Spain</td>
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<td>1 950.5</td>
<td>1 965.8</td>
<td>1 969.4</td>
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<td>463.5</td>
<td>453.3</td>
<td>436.6</td>
</tr>
<tr>
<td>European Union–28</td>
<td>17 883.5</td>
<td>19 991.1</td>
<td>20 283.3</td>
<td>20 245.9</td>
<td>..</td>
</tr>
</tbody>
</table>

Source: made by author, based on the information provided by the National Statistic Institute, available online at: [https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_int019.html](https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_int019.html)

**Figure 1: Number of bachelor and master students and the rate of full-time students**

Source: made by author, based on the information provided by the National Statistic Institute, available online at: [https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi008.html](https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi008.html)
Figure 2: Number of full-time students by regions
Source: made by author, based on the information provided by the National Statistic Institute, available online at: https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi013.html

Figure 3: Budgetary support of the higher education, change in GDP and GDP-proportionate support (previous year = 100%)
Source: made by author, based on the information provided by the National Statistic Institute, available online at:
https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qpt015.html
https://sites.google.com/site/felsooktatastenytar/koltsegvetes/tamogatas-vs-gdp
https://sites.google.com/site/felsooktatastenytar/koltsegvetes/koltsegvetes-idosorosan
Figure 4: Change in number of students in the higher education and change in amount of the budgetary support (previous year = 100%)

Source: made by author, based on the information provided by the National Statistic Institute, available online at:
https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_zoi007a.html
https://sites.google.com/site/felsooktatastenytar/koltsegvetes/tamogatas-vs-gdp