

The International Orientation of the Higher Education Institutions

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Abstract: Romanian higher education needs to use the valid hierarchy systems in order to make itself known, and it has to become as transparent as possible in what concerns the diversity of the teaching methods, of research and of funding. We also have to ask ourselves the following question: in the conditions of financial agreements, is it possible for the Romanian universities to enter the international league? Could a Romanian university rank within the first 50 or 100 universities in the world?

We have attempted to find an answer to this research problem by analyzing the most important performance indexes used by the world's hierarchy systems, and by suggesting a hierarchy model that takes into account the present global needs and tendencies in higher education, and that is relevant and valid both in Romania and abroad. These indexes were subject for validation by 15 experts from all over the world, with a vast experience in international education and in using the hierarchy systems.

Introduction

In the academic environment, both in Romania and abroad, there are numerous ranking systems for higher education, but very few of them are used to evaluate international activity exclusively. Considering the generalization and globalization of higher education, one of the university performance criteria is represented by international activity.

Studies show that educational institutions are directly involved in this increasingly important activity. Some of the questions that can be asked both by potential foreign students and teachers and by employers are: What are the foreign language courses

offered? Will the studies be acknowledged by higher education institutions abroad? Are the credits obtained in a university recognized? In what conditions takes place the academic and research activity in the university? In order to correctly answer these questions, it is important to know the orientation towards internationalization of the universities and colleges. This topic will represent the nucleus of the present research, as follows.

Users of the Hierarchy Systems for Higher Education and the Advantages of Using these Systems

The beneficiaries or users of national and international hierarchy systems can be:

1. Directly interested beneficiaries:

- Prospective students;
- Foreign students interested in studying at other universities;
- People who wish to take a certain course, but are not sure where to do this;
- Students who wish to exchange universities during their studies;
- Sponsors, industrial partners, external governmental or institutional financing parties;
- Human resources offices and people responsible for recruiting inside companies;
- The academic and university staff interested in ranking their own institution among the other higher education institutions;
- Quality centers for higher education;
- Parents;
- Companies and institutions interested in hiring the best trained graduates;
- Research institutes.

2. Indirectly interested beneficiaries:

- Governmental, non-governmental and community organizations;
- Media;
- The local community;
- Other organisms.

The Hypothesis of the Research:

Is there a combination of performance indexes of the higher education institutions in what concerns international activity and orientation, accepted as relevant by international evaluating experts?

In what follows we will attempt to answer this question from the perspective of establishing these indexes and the hierarchy model through the Delphi method and the implementation of this model through a pilot study on a sample of 12 universities in Romania and abroad.

The statistical weight of the criteria and indexes in the hierarchy model received from the experts was processed as follows:

Each grade was associated to the value in the table:

Essential 10	Very relevant 8	Relevant 4	Less relevant 2	Irrelevant 0
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On the row, the values that resulted from the multiplication of the weight by the associated value were added.

Example: for index A2 the weight was calculated as follows:

$$10 \times 1 + 8 \times 4 + 4 \times 3 + 2 \times 0 + 0 = 54$$

The resulting weights were added and the respective sum was given the maximum percentage (100%).

Each weight was reported to the total value (in percentage, table no.1.):

		No. ind.
A	Total	%
2.	54	8.3
3.	46	7.07
6.	78	12
7.	52	8
10.	44	6.76
11.	46	7.06
12.	42	6.46
13.	54	8.30
14.	44	6.76
16	56	8.61
17.	36	5.53
18.	46	7.07
20	52	8
Total	650	100%
ES		
1.	58	29.30
8.	68	34.35
9.	72	36.35
	198	100%
EP		
4.	52	26.26
5.	52	26.26
19	50	25.25
20.	44	22.22
	198	100%

Table no. 1 Weight of the criteria and their indicators in the proposed ranking system

Resulting weights (in percentage) for the analysed criteria:

Criterion	Total	%
A.	315	40.12
ES.	210	26.75
EP.	260	33.12
Total	785	100

The weights resulted by mediation were rounded to whole values.

Round III

Since a consensus was not reached, and only 60% of the experts responded to the relevance criterion, the third variant of the questionnaire (obtained after processing the data received from the experts in round II) was retransmitted to the experts together with the weight established on the Likert survey.

The experts were asked to re-evaluate the weights of the indexes.

After eliminating the extremes, the total weight was calculated, and the procentual value for each index.

Calculation Formula.

The suggested formula that includes the weights agreed upon by the experts is used for the general ranking of a university X_i , where i represents the number of universities involved in the study:

$$(1) \text{ Rank } X_i = [0,4 \cdot CAX_i + 0,3 \cdot CESX_i + 0,3 \cdot CEPX_i] \cdot w; \text{ Where:}$$

CAX_i = The score of university X for criterion A

$CESX_i$ = The score of university X for criterion ES

$CEPX_i$ = The score of university X for criterion EP

$w = (g_3 + g_6) / 100$ - coefficient given by the number of full-time staff engaged in international relations activities and by the number of foreign students in that university.

CA, CES, CEP - are results used for partial ranks after each criterion.

CA - The "Management and administrative aspects regarding international orientation" criterion.

CES - The "Students' experience and involvement in international activities" criterion.

CEP - The "Teaching staff's experience and involvement in international activities" criterion.

$\max(q_i, X_i)$ – the maximum number reported from the respondents to question q_i , $i = 1$ to 20.

The formula contains the three criteria suggested and evaluated by the validated indexes.

The calculation formula for each criterion in the hierarchy model are presented below:

For a university X evaluated according to criterion A, the calculation formula is:

$$(2) C_i A X_i = 10 \cdot q_2 + 8 \cdot q_3 + 12 \cdot q_6 / \max(q_6, X_i) + 8 \cdot q_7 + 7 \cdot q_{10} / \max(q_{10}, X_i) + 7 \cdot q_{11} / \max(q_{11}, X_i) + 5 \cdot q_{12} + 6 \cdot q_{13} / \max(q_{13}, X_i) + 7 \cdot q_{14} / \max(q_{14}, X_i) + 9 \cdot q_{16} + 5 \cdot q_{17} + 7 \cdot q_{18} + 9 \cdot q_{20}.$$

Example for criterion A:

University: code X;

$$\text{Rank A} = 9,5 + 7,0 + 12 \cdot 0,2 + 8 + 0,25 \cdot 7 + 0,5 \cdot 7 + 0 + 0,66 \cdot 8 + 7 + 0 \cdot 8 + 0 \cdot 5 + 0 \cdot 7 + 0 \cdot 80 = 48,03 \text{ points}$$

0.2 = no. of doctoral programs / maximum no. of faculties (at university z there are maximum 10 faculties offering foreign language courses)

0,25 = 2 doctorates / 8 (at university y there are maximum 8 doctoral programs)

0,50 = 60 agreements / 120 (maximum no. of agreements)

0,66 = 2 (the university offers web pages in two languages) / 3 (maximum no. of languages in which web pages are offered)

For a university X evaluated according to criterion ES the calculation formula is:

$$(3) CESX = 29 \cdot q_1 + 35 \cdot q_8 / \max(q_8, X_i) + 36 \cdot q_9 / \max(q_9, X_i)$$

For a university X evaluated according to criterion EP the calculation formula is:

$$(4) CEPX = 28 \cdot q_4 / \max(q_4, X_i) + 27 \cdot q_5 / \max(q_5, X_i) + 25 \cdot q_{19} / \max(q_{19}, X_i) + 20 \cdot q_{15}$$

Criteria in the ranking model

Nr.	Criteria in the ranking model
A.	Performance criterion A – Institutional Management and administrative aspects regarding international activity
ES.	Performance criterion ES - students' involvement in international activity
	Performance criterion EP – international experience and involvement of the faculty

EP.	
IT.	Performance criterion IT – Informational technologies that support the internationalization of higher education

Conclusions

An efficient hierarchy system represents a very useful financing instrument as well as a method to make the university's results and performance known. Moreover, analyzing the ranking systems can lead to:

- Identifying the evolution tendencies in higher education;
- Transforming existant graduate and undergraduate courses and introducing new ones;
- Modifying or updating the educational and financial policy, the educational strategy and objectives in higher education;
- Using different educational technologies and strategies;
- Adapting the contents of the subjects so as to answer real demands;
- Modifying the curricula.

The authors' effort was to point out the performance indexes regarding international aspects, present in the national and international ranking systems. On the basis of his research as well as of his own experience resulted from 10 years of activity in the field of university internationalization, he suggested an original ranking model to answer the present tendency towards globalization of the education.

The originality of the suggested model is given by the fact that the research and its validation were done with the help of international experts, as the author's intention was to have a ranking model of the international activity oriented towards globalization and easy to implement at an international level. Some of the performance indexes used can also be found in other ranking systems and methodologies internationally recognized, such as the Shanghai system (China), US News (USA), CHE (Germany), that are very popular at present in various rankings.

References

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