The Future of the Higher Education's Quality under the Impact of the Real Socio-Economic Environment. A Romanian Point of View on the Academic Curricula's Standardization

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Abstract: Romanian higher education system faced to a lot of challenges in the latest years. The need to adapt to Bologna criteria forced the universities to adopt different managerial approaches in order to improve education and management quality and to survive into a hostile environment. The paper realizes a comparative analysis between the European and Romanian quality management evaluations starting for the practice. The analysis is followed by a SWOT analysis, which defined strengths and weaknesses, threats and opportunities related to academic management evaluation under ARACIS and EIP. The next step of the analysis realizes a forecast of the number of new students in Danubius University, using dedicated software, SPSS19. The main conclusion of the paper is that quality represents a main objective and a result of all activities in Danubius University. Moreover, Danubius University is able to educate and form labour not only for the Romanian labour market.

Keywords: academic quality evaluation; academic curricula; university top management; crisis' impact

1   Introduction

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The European general integration process covers not only the socio-economic environment. The cohesion and the sustainable development across the Europe are focused on education, as well. A well-educated labor is a major element which is able to support the economic recovery and the economic progress on medium and long term. The elimination of the socio-economic disparities across Europe needs standardization of all human activities. This means common elements and values which to be recognized by all local, regional and national authorities. Under this approach, most of the European universities signed Bologna Agreement, which enforced common standards for higher educational processes. Romania signed this agreement and became a part of the European standardized higher education system. As in other activities, European educational standards had to be implemented in every Member State using the national approaches. A specialized organization (ARACIS) was created in Romania, in order to implement and to adapt the European educational standards to the Romanian universities. ARACIS certificates the educational quality in every Romanian university. The quality certificate may be received by a university study program or by a whole university. On the other hand, there are European quality organisms, like that connected to European Universities Association (EUA), which have the abilities to certify the quality of higher education in a European university (see Figure 1).

The socio-economic environment covers: economic industries, technical progress, labour market, competitiveness, etc.
The historical and cultural environment is connected to traditions, religions, levels of education and training, ethnic minorities, etc.

EUA, ARACIS and Non-European good practices have unidirectional connections to the educational system, but socio-economic environment and historical and cultural environment have bidirectional connections, because they influence and are influenced by the higher educational system.
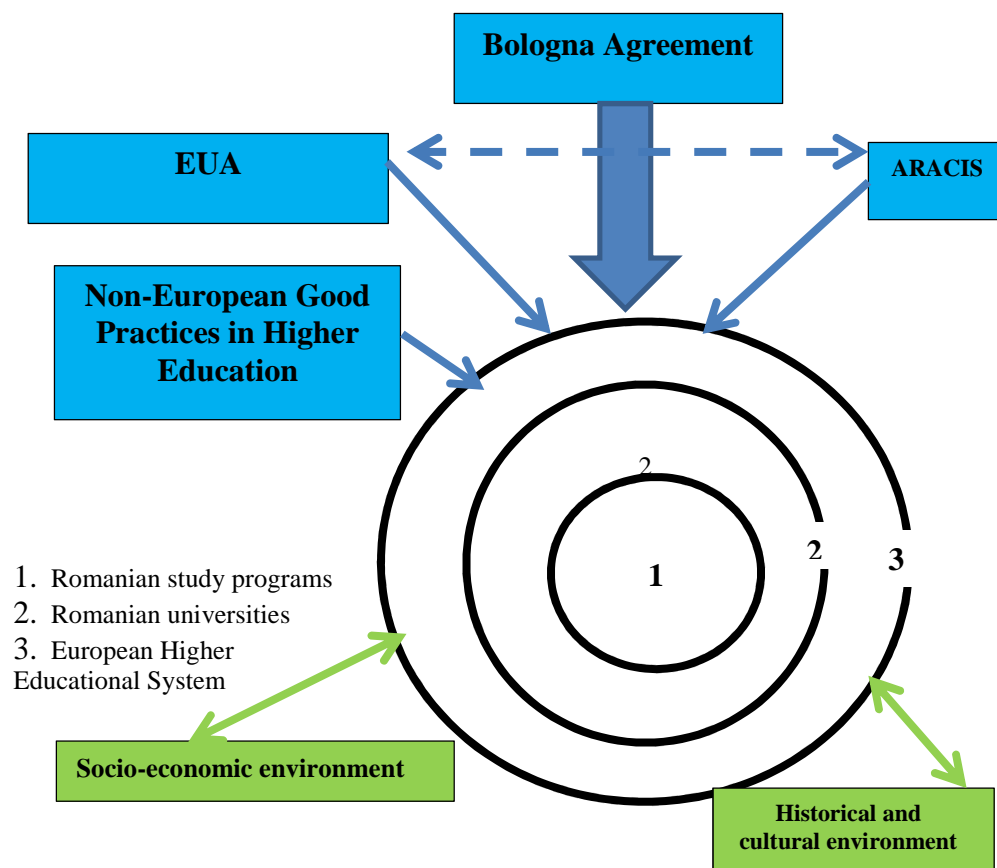
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Figure 1 Romanian higher educational system
Source: Personal contribution

1. Romanian study programs
2. Romanian universities
3. European Higher Educational System

2   Research Methodology

The paper uses the comparative analysis, in order to see the good and weak elements of the quality methodologies used by ARACIS and EUA. In order to do this, we used both official methodologies of evaluation and compared their specific elements, criteria and standards. Moreover, the paper realizes a SWOT analysis based on strengths and weaknesses, threats and opportunities.

The next step of the analysis is to realize a forecast of the effects of our university's quality implemented measures on the number of entrances in graduate and postgraduate study programs for the next three years. In order to do this, we used a dedicated soft SPSS19, under ARIMA restrictions.

3   Educational Quality and Specific Procedures

There are great differences between the European and the Romanian quality accreditation procedures.

The Institutional Evaluation Programme (IEP) operates under the EUA as an independent membership service. It has to ensure that higher education institutions gain maximum benefit from a comprehensive evaluation conducted by a team of experienced higher education leaders (IEP, 2013, p.4).

ARACIS operates as an independent institution and is focused on the public interest insurance in high qualitative level standards in all universities (ARACIS, 2006, p.4).

In its evaluation process, ARACIS is focused on mandatory regulatory requirements and standards and performance indicators, while EIP quantifies norms, values, mission and goals. Moreover, there are some important differences between both institutions' approaches (see Figure 2).
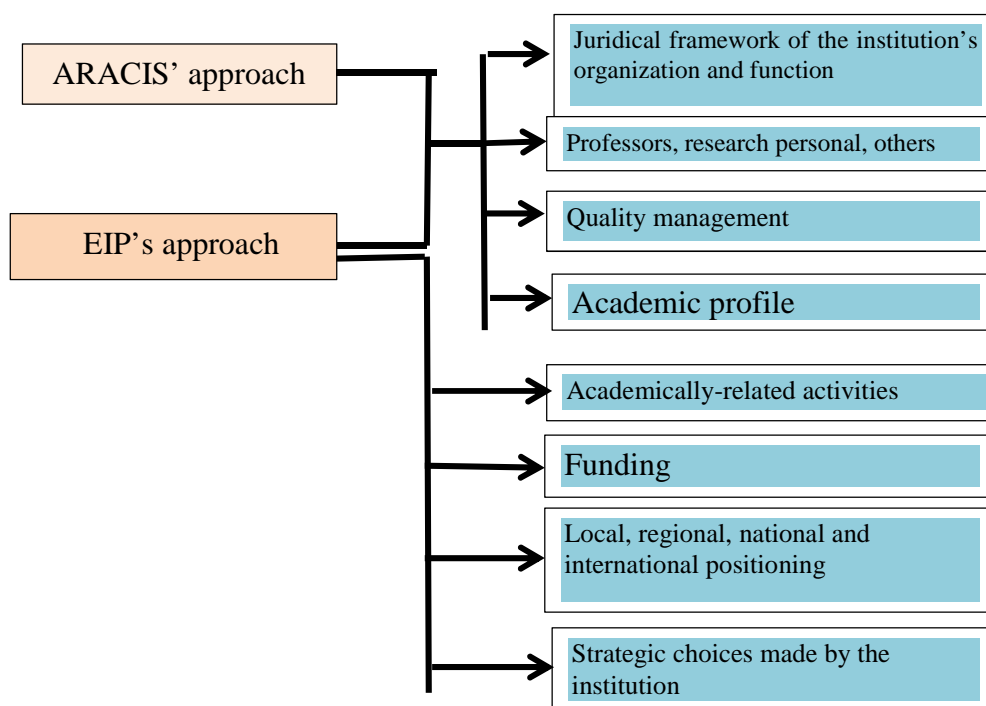

Figure 2 Romanian and European approaches on evaluation
Source: Personal contribution

According to Figure 2, the EIP's evaluation approach is more complex and connected to practice. It is focused on the real socio-economic environment's needs and tries to support universities in order to be able to adapt their curricula as much as the labour market asks.

These differences seem to be normal as long as the European university system has at least 5-7 hundred years more than the Romanian one. On the other hand, the Romanian universities had not enough money to burn the lag, as University of Chicago did in 2008, when received (largely from the federal government) and spent $423.7 million on scientific research, for example (University of Chicago, 2009).

EIP's evaluation is connected to the role, importance and impact of the universities on real business environment. Moreover, it quantifies the impact of the universities on local, regional, national and international areas.

A parallel SWOT analysis allows us to have a better approach of both evaluation systems (see Table 1).

Table 1 SWOT analysis

	ARACIS	EIP
Strengths	- same methodology for all universities; - independence;	same methodology for all universities; - independence;

	ARACIS	EIP
	- possibility to do more evaluations	- possibility to do more evaluations
Weaknesses	- experts come from other universities which compete on the same market; - final decision of the evaluation is adopted under secret ballot; - high evaluation taxes; - difficulty to adapt curricula to the labour market demand; - ARACIS establishes compulsory curricula for every study program; - difficulty to develop international double degree programs.	- possibility to not be able to understand the particularities of the Romanian academic system; - the expertise commission can be formed from experts from different countries with different approaches related to the academic system;
Threats	- often, ARACIS' experts do not implement a collegial peer; - the monopoly position of ARACIS can lead to excesses.	- the result of the evaluation is not recognised by ARACIS
Opportunities	- possibility to develop new graduate and postgraduate programs using a basic accredited program	- possibility to have a more neutral assessment; - possibility to increase the university's visibility at local, regional, national and international levels; - possibility to face the challenges of the European university curricula

Source: Personal contribution

According to Table 1, a Romanian university is not able to adapt its curricula when the labour market asked it. For example, if a university wants to introduce a new discipline in its curricula in the third year, it has to wait three years until the new learning plans will be available. All these above when the ARCIS' compulsory curricula was establish in 2006. Nowadays, the real socio-economic environment is more different than in 2006, but ARACIS forces the universities to apply its old curricula.

Moreover, some ARACIS experts come from competing universities, even from the same city. We think that is very difficult to be neutral in such situations.

Unfortunately, ARACIS has an excessive approach in specific evaluation situations. Few years ago, ARACIS managed a process of classification for all Romanian universities, based on specific indicators. The problem was that ARACIS informed about the value of those indicators after the universities sent their reports, not before. As a result, some indicators had at least strange values. An article in an ISI indexed publication with impact factor zero had a lower value than another article published in an IDB publication. And everybody knows that all ISI publications are IDB indexed, as well. So, according to these evaluation criteria, the universities had to report the ISI indexed articles as IDB articles, in order to obtain more point!

Another ARACIS discretionary measure is that to establish the number of the students in the first year, without any connection to the real socio-economic environment. As a result, in the latest years, ARACIS granted only 50 students in the first year at all accredited master programs!

A normal reaction of the Romanian universities was and is to ask for an international independent evaluation. The problem is that the EIP's evaluations, for example, are not agreed by ARACIS, which

is afraid to lose its monopoly position. The conflict between ARACIS and Romanian universities increased and some universities went to court.

4   Danubius University on the Way of Academic Performance and Internationalization

Danubius University passed the accreditation process under ARACIS. Nowadays, it is an accredited university, part of the Romanian high learning system.

The university's top management implement a new academic management, based on horizontal and transversal skills, on a strict financial discipline and in permanent contact with the labour market's needs. Moreover, the university has a well-defined orientation to the international academic cooperation. At local and regional levels, Danubius University became an engine to progress and cooperation with the representatives of the public and private administrations, NGOs, etc.

This is why Danubius University has to face to many challenges, connected to global crisis' impact, demographic trends, conservatism or an improper political approach in higher education. These above elements affected the evolution of the inputs and outputs into/from the University's study programs.

As a result, we are interested in forecast the number of our new students under the above mentioned restrictions. We used the official data from Danubius University's dedicated department and a dedicated soft. In order to realize this forecast, we used data from Table 3.

Table 3 New entrances in the first academic year (pers.)

Students	2009	2010	2011	2012
Graduate	2297	1059	816	884
Postgraduate	908	524	382	360
Total	3205	1683	1198	1244

Source: Personal contribution using UDG's data base

The forecast covers 2013-2015 and is made under ARIMA restrictions (see Annex). The number of the new Romanian students' entries will decrease very much (see Figure 3).

According to Figure 3, Danubius University has to accelerate its new orientation to foreign European and non-European students, because the Romanian basin will be smaller. This is why Danubius University implemented a MBA with Arcadia University (USA), a double degree master program with University of Piraeus (Greece) and other three graduate and postgraduate study programs in English.

5   Conclusions

The global crisis and the demographic trends in Europe forced universities to adopt new approaches in order to improve the quality of their higher educational programs. Romanian universities are part of this process.

Under Bologna Agreement, the university quality system became unique and had to be implemented in all European universities.

There are great disparities between the European universities, especially between Western and Eastern universities connected to financial support, material base, private and government support.

Romanian private universities have no government financial support and have to survive into a hostile environment.

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Nevertheless, Danubius University is able to educate and form labour not only for the Romanian labour market, nowadays. Quality represents a main objective and a result of all activities in Danubius University.
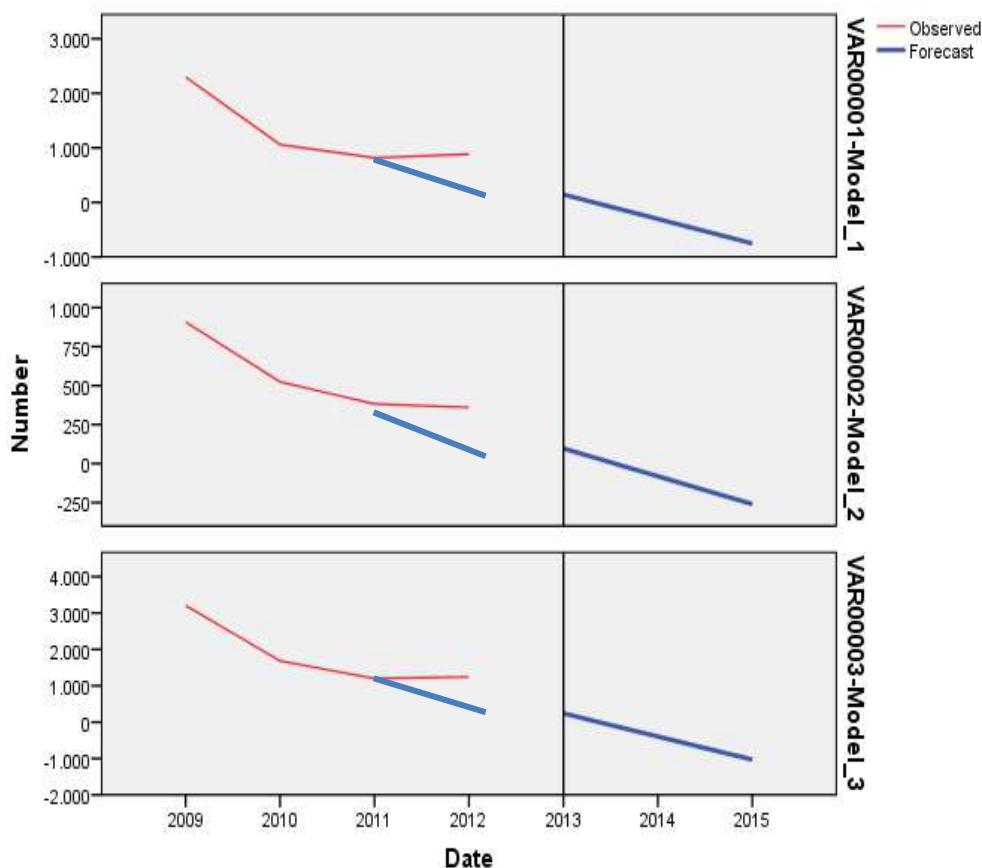

Figure 3 Forecast of the new Romanian students' entries in Danubius University
Source: Personal contribution

6   Appendix

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PREDICT THRU END.
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Time Series Modeler

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Model Description

			Model Type
Model ID	VAR00001	Model_1	ARIMA(0,0,0)
	VAR00002	Model_2	ARIMA(0,0,0)
	VAR00003	Model_3	ARIMA(0,0,0)

Model Summary

Fit Statistic	Mean	SE	Min	Max	Percentile 5	10	25	50	75	90	95
Stationary R-squared	,760	,068	,691	,826	,691	,691	,691	,764	,826	,826	,826
R-squared	,760	,068	,691	,826	,691	,691	,691	,764	,826	,826	,826
RMSE	387,928	227,945	129,432	560,115	129,432	129,432	129,432	474,237	560,115	560,115	560,115
MAPE	23,930	5,377	18,437	29,182	18,437	18,437	18,437	24,171	29,182	29,182	29,182
MaxAPE	31,147	8,659	23,444	40,519	23,444	23,444	23,444	29,477	40,519	40,519	40,519
MAE	269,667	158,581	90,500	392,000	90,500	90,500	90,500	326,500	392,000	392,000	392,000
MaxAE	335,267	197,083	108,800	467,900	108,800	108,800	108,800	429,100	467,900	467,900	467,900
Normalized BIC	12,262	1,604	10,419	13,349	10,419	10,419	10,419	13,017	13,349	13,349	13,349

Model Statistics

Model	Number of Predictors	Model Fit statistics Stationary R-squared	Ljung-Box Q(18) Statistics	DF	Sig.	Number of Outliers
VAR00001-Model_1	1	,691	.	0	.	0
VAR00002-Model_2	1	,826	.	0	.	0
VAR00003-Model_3	1	,764	.	0	.	0

7   References

ARACIS. (2006). *Guide for external evaluation for study programmes' accreditation.* Bucharest.

IEP. (2013). *Guidelines for institutions*, at: http://www.eua.be/publications

University of Chicago News Office. (2009). *Facts for Journalists,* Archived from the original on June 4.