

WHERE IS THE ROMANIAN UNIVERSITY HEADING AT THE BEGINNING OF THE THIRD MILLENIUM?

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Abstract

This article presents some of the results obtained from a larger empirical study conducted during the period 2008-2011 in five universities that have the traditional, technical and economic profiles in Romania. Our basic approach was the qualitative-quantitative analysis of the possibility of the Romanian higher education to assimilate the entrepreneurial perspective in the current practices from two different perspectives, i.e. teachers and students. The theoretical model of our study belongs to the acclaimed author Burton R. Clark (1998) who identified five ways to develop an entrepreneurial-oriented university (a well-established decision-making center, an extended dynamic periphery, a diversified funding base, a well-stimulated academic core, an integrated entrepreneurial culture), without being literally considered.

Keywords: entrepreneurial university, university-labor market relationship, triggering factors of change, factors that block change.

Introduction

The metamorphoses of current days have generated a rethinking of the functions of the university in a knowledge society and economy. Thus, at European and, subsequently, at national level, it was concluded that the university cannot move in the same manner as it did before.

It must also be stated that, while in the 19th century the Humboldtian university model was necessary at European level, and later worldwide, there is no consensus today with regards to the university model of the future. However in the last fifteen years, the entrepreneurial university model has become increasingly necessary, promoted especially by European policies, gradually joined by more and more countries. Both internationally and nationally, the educational research experienced acceleration in this regard.

The theoretical framework underlying this research was traced by analysing the relevant research conducted at international, European and national level. Important names in literature have dealt with the issue of

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universities: Burton R. Clark (1998) using the term *entrepreneurial university* for the first time, Sporn (1999) - *adaptive university*, Frans van Vught (2000) - *innovative university*, Slaughter and Leslie (1997) - *academic capitalism*, Gibbons (1994), Etzkowitz (2002, 2004), Jochen Ropke (1998), Kirby (2005), Michael Shattock (2005), Guy Neave (2001), Ulrich Teichler (2009), Michavila Francisco (1998, 2006, 2008), J. Bricall (2000), Sorin Zaharia (2002), Valentin Muresan (2002), Mihai Korca (2002), Ana Bulai and Alfred Bulai (2002), Mircea Miclea (2006), and other authors.

The definition that has emerged from the reflection on the operationalization way of the *entrepreneurial university* concept is the following:

"The entrepreneurial university is the university that retains its traditional mission (i.e. to teach and research), which adopts a new function: the economic and social development follows an enterprise-specific management and a continuous innovative action, spread over several years at various levels through the entrepreneurial attitude and behavior of its members, which is reflected in the organization itself, in relation to other institutions, in relation to industry and government, thus opening more promising prospects for the future".

1. Implementing Issues of the Empirical Study

The main aim of the empirical study was the qualitative-quantitative analysis regarding the possibility of the Romanian higher education to incorporate the entrepreneurial perspective into current practices from two angles, namely those of teachers and students. The research design took the form of multiple case studies.

In order to achieve the aims of the research, triangulation was used (Table 1).

Table 1. Research methods and techniques applied

Tools	Whom they are provided to	Outcome
Mirror questionnaire	Teachers Students	Perception with regards to 7 dimensions
The analysis technique of the content of communication	Open items within the questionnaire Documents	Setting up common categories for teachers and students
Document analysis	Institutional documents (Strategic plan, web, etc.)	How the university appears along the investigated dimensions, starting from the documents that are analyzed

The questionnaire was a **mirror-type one** for teachers and students in order to emphasize the similarities and differences from two different angles, namely that of students and teachers with regards to the possibility of assimilating the entrepreneurial perspective within the university they are part of. The questionnaire for teachers included 35 items, and the questionnaire for student included 33 items, mostly common items and only five different ones in relation to the status of subjects. The items are built according to the Likert-type Scale with multiple pre-coded options, with open questions and closed questions.

The fieldwork was conducted at various faculties having the profile of economics, technical and humanist from five major universities in Romania: "Babes-Bolyai" University of Cluj-Napoca, "Alexandru Ioan-Cuza" University of Iasi, Oil & Gas University of Ploiesti, "Politehnica" University and The Academy of Economic Studies from Bucharest. 1109 subjects were investigated in the said five universities, of which 996 students and 113 teachers. Depending on the participation in the study of statistical population, there was a full participation of the binomial teachers and students in respect of three universities, and only the participation of students for the remaining two universities, as shown in the table below.

Table 2. Unit distribution of population that has been investigated

		Educational Institution	Teachers	Students	Total
U1	UBB	"Babes-Bolyai" University of Cluj	45	282	327
U2	UPG	"Oil & Gas" University of Ploiesti	32	148	180
U3	ASE	The Bucharest Academy of Economic Studies	36	134	170
U4	UAIC	"Alexandru Ioan Cuza" University of Iasi		312	312
U5	UPB	"Politehnica" University of Bucharest		120	120
		Total	113	996	1109

Teachers are selected from universities that have faculties of economic and humanist profiles, hereinafter referred to as noneconomic profile. Also, students are selected from the same faculty as teachers, plus the technical faculties, hereinafter referred to as noneconomic, in order to be able to make a comparison with the economic profile (Table 3).

Table 3. Distribution of profile discipline

	Profile	Teachers		Students	
1	Economic	94	83.2%	412	41.4%
2	Noneconomic	19	16.8%	584	58.6%
	Total	113	100.0%	996	100.0%

This study highlights only some aspects of the research that aimed to the diagnosis analysis of the assimilation of entrepreneurial perspectives in current practices of five universities in Romania, with reference to seven dimensions which are fully consistent with the intended objectives and assumptions of the empirical study.

1.1. The operationalization of the entrepreneurship concept

There are two assumptions underlying the dimension that aims to operationalize the entrepreneurship concept, namely: Entrepreneurship can have different meanings in different contexts, depending on the people involved in entrepreneurship (Clark, 2000) and Tradition and innovation go together (Clark, 2002; Miclea 2006; Zaharia, 2006).

"University" - as the oldest institution in the world, is put today in a position to rethink its functions and mission in a knowledge-based society and economy. Romanian academics consider that significant changes have been made in the Romanian academia in terms of mission undertaken, but the same can be said from the perspective of students, whose opinions differ depending on the university, as shown in the chart below.

A central issue for the empirical study will be discussed, namely whether the *Romanian university can assimilate the entrepreneurial perspective*, thus integrating new innovative elements, but also the extent to which *each of the five institutions analyzed can assimilate this development direction*.

Therefore, teachers in the three universities analyzed (UBB, UPG, ASE) show a moderate confidence regarding the possibility of the entrepreneurial perspective to be assimilated within the Romanian universities, while students show a different confidence in relation to the economic and noneconomic profile (classical and technical) of universities. Thus, students who attend an economic profile show moderate confidence, while those who attend a noneconomic profile (classical and technical) show a lower confidence in the Romanian higher education opportunities (Z Test).

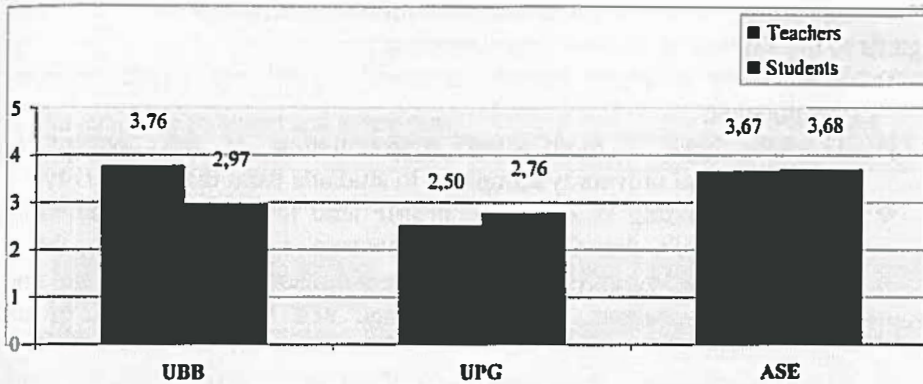


Fig.2. The assimilation possibility of entrepreneurial items in university, according to teachers and students

In analyzing the representation method regarding the entrepreneurial university concept of teachers and students from the aforementioned five universities, 21 characteristics that are common to subjects have been investigated. However, there are differences in the frequency of responses for these characteristics, between teachers and students from the same university, as well as between different universities; consequently our initial assumption can be confirmed, i.e.: *Entrepreneurship can have different meanings in different contexts, depending on the people involved in entrepreneurship* (Clark, 2000) (Z test). In the Romanian academia there is no perfect balance between tradition and innovation, instead the innovative components are gradually and slowly entering (Fig. 3).

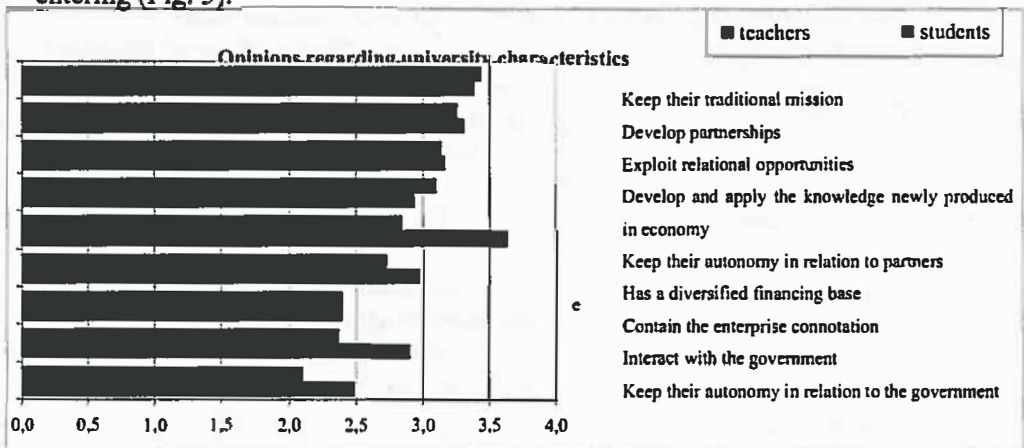


Fig. 3. Characteristics of the entrepreneurial university, according to students and teachers

Regarding the first dimension, the following findings are made with regards to the Romanian academic environment:

- ❖ The concept of entrepreneurial university is still considered taboo by the students;
- ❖ Teachers have a more clear representation of the concept of entrepreneurial university compared to students from their university;
- ❖ Students attending an economic profile tend to define entrepreneurial university with the following characteristics: quality of teaching, developing the entrepreneurship, partnership development, national and international projects, fostering change and the integration of an entrepreneurial culture;
- ❖ Students attending a noneconomic profile (classical and technical) tend to characterize the entrepreneurial university by knowledge development and its implementation in the economic environment, but also the development of the entrepreneurial spirit of its members;
- ❖ Teachers practicing in economic faculties tend to characterize the entrepreneurial university by: developing partnerships and national/international projects that are capable of a diversified funding/financial support, correlated with labor market/ supports the integration of graduates, develop and apply knowledge newly produced in the economy
- ❖ Teachers in traditional higher education tend to represent the entrepreneurial university by the following attributes: includes the specific connotation of enterprise, enterprise-specific management, develops partnerships and national / international projects, develops entrepreneurial behavior to its members, fostering change and integrates an entrepreneurial culture, an active, adaptive, flexible behavior
- ❖ Students who do not yet know the concept of entrepreneurial university however appreciated the existence of the university entrepreneurial characteristics in their university based on a predetermined list.

1.2. University Management

"University Management" or the decision-making center, as Burton Clark calls it, is one of the directions of transformation of a university towards an entrepreneurial direction. Thus, it is essential to know the expectancies of teachers and students on entrepreneurial university management. The chart below is representative from this point of view for universities.

Table 4. Decision makers in the entrepreneurial university

1	University should decide for itself	U
2	University and government	U&G
3	University, government and enterprises	U&G&I
4	University, government, enterprises and other social representatives	U&G&I&S

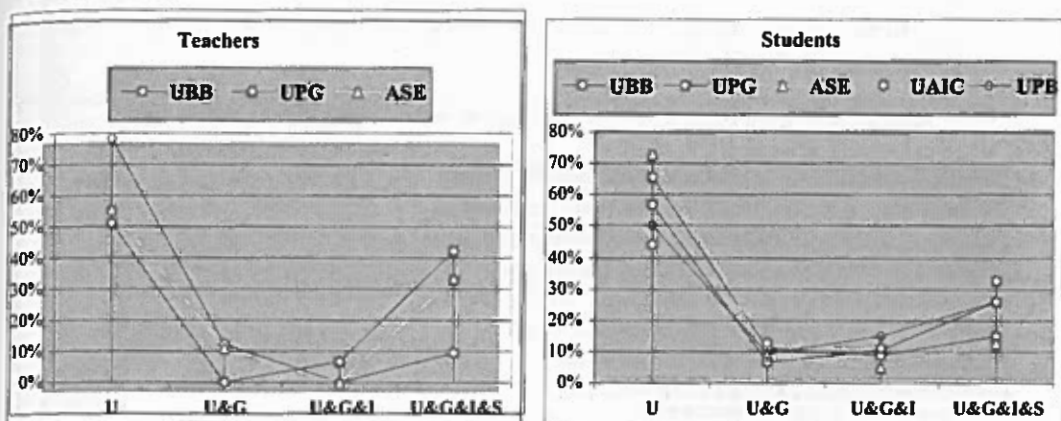


Fig.4. The opinion of teachers and students on the decision-making responsibilities in the entrepreneurial university

It is found that:

- ❖ According to teachers and students, there are two tendencies: to believe that the entrepreneurial university's decision-making responsibilities are incumbent upon the university itself, and with a slightly lower frequency, to the university, the government, the enterprises and other social representatives;
- ❖ Within Babes-Bolyai in Cluj-Napoca, this second trend is more obvious, although it is a classical / traditional university;
- ❖ Among the students that approach this second trend are the students within "Alexandru Ioan Cuza" University of Iasi, "Babes-Bolyai" University in Cluj-Napoca and "Politehnica" University of Bucharest;
- ❖ How Romanian universities are managed nowadays (U & G) does not correspond, therefore, to the expectations of students and teachers for an entrepreneurial-oriented university;

1.3. Entrepreneurial Structures

Another direction of change of a university to an entrepreneurial level is the existence of a "dynamic periphery." The dynamic periphery includes units

which establish the relationships with the environment, in the form of specialized offices that rely on knowledge transfer, industrial cooperation, continuous education, obtaining financial resources or even the relationship with alumni. These centers are designed to overcome traditional boundaries, by facilitating the relationship between departments and environment (Clark, 2000:26).

In all universities in Romania, one or more of these types of innovation infrastructures can be identified (Figure 5).

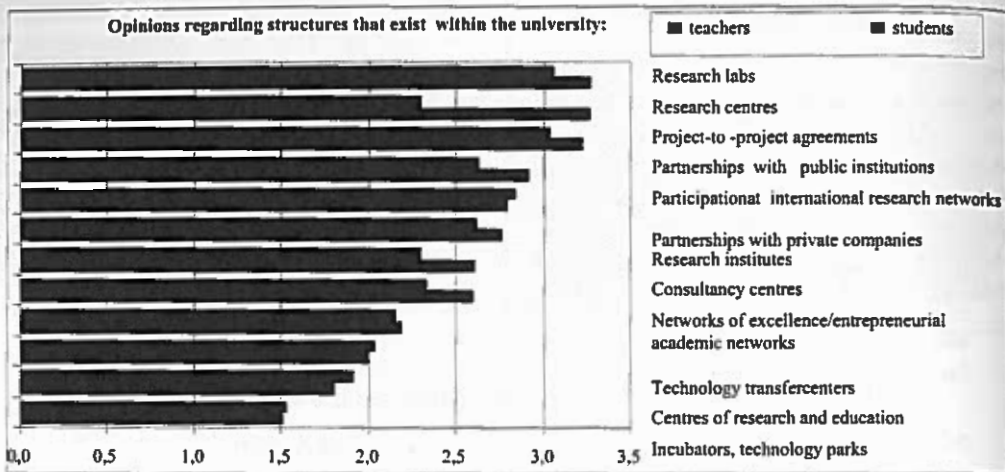


Fig.5. Innovation infrastructure in the Romanian academic environment

According to the literature, it was found that the conditions for launching the higher parameters of innovation and the technology transfer in the Romanian economic space had not yet been created. Moreover, the involvement of teachers and students in these structures still remains low.

1.4. The funding base

Starting from the assumption that tertiary sources are genuine financial diversification (Clark, 2000, 27), we decided to analyze, within this dimension, if universities can financially support themselves from budgetary and extra-budgetary sources.

In a more detailed analysis of the responses of teachers and students at an open item, those sources that generate extra income for universities had been identified, which we quote in the table below.

Table 5. Extra income sources

Code	Identified categories for teachers and students
v01	State/government
v02	Partnerships with private companies and other national and international organizations
v03	National/international funding research projects
v04	European financing projects
v05	Competitions
v06	Subsidies from structural funds
v07	Various fees imposed to full-time study, distance learning students, and continuous training programs for enrollment, tuition, studies, resits etc.
v08	Various fees imposed for other types of services: library access, accommodation, optional courses, gym etc.
v09	Rentals of locations
v10	Sponsorship/Donations
v11	Internal structures: booksellers, publishing, store, printing
v12	Commercials / advertising space
v13	Services for third parties
v14	Research grants
v15	Sale of new technologies and/or discoveries, publications

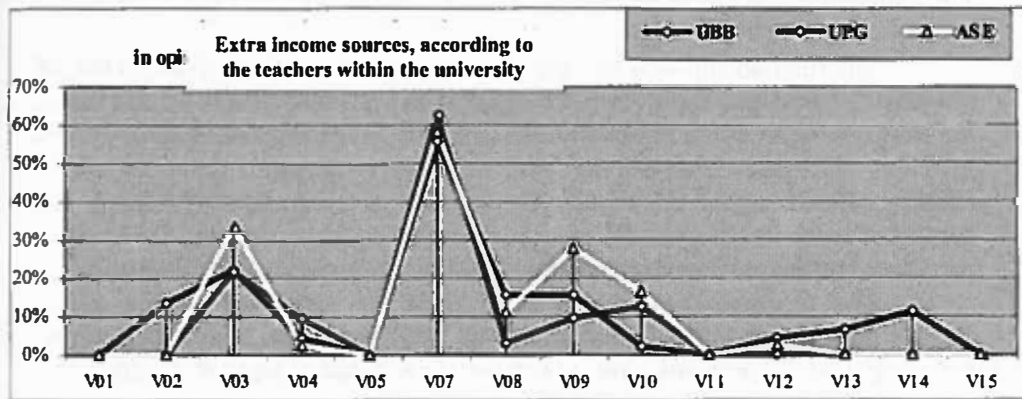


Fig.6. Extra sources of income, according to teachers

The trend that can be noted according to the opinions of teachers in all universities that have been analyzed is that fees charged to students are their main source of extra-budgetary funding, followed by the achievement of research projects with national/international funding. The other sources stand out depending on the university.

Both according to students and teachers, the main source of extra-budgetary funding are the fees charged to students, with the difference that teachers responded more frequently so. To this trend, another one is added - financing coming from partnerships with private companies. At this dimension, the findings are set out below:

- ❖ both teachers and students appreciate that their university can support both budget and extra-budgetary sources
- ❖ the main source that generates extra-budgetary income to Romanian universities is, according to the teachers and students: student fees, national / international funding projects, partnerships with private companies
- ❖ the lowest ones are represented, according to teachers, by the income coming from internal structures (libraries, publishing house, stores, printing) and according to students, services for third parties
- ❖ potential sources of extra-budgetary income are expected to come from: partnerships with businesses, national and international research projects, research centers, counseling centers, various fees for failure to return books, attending conferences
- ❖ according to teachers, funding should be based on a number of criteria for performance, quality, competence and less from public funds only.

1.5. University and Labor Market

The relationship between the university and the labor market is one of the most debated and most complex areas of educational policy. At this level, the research activity of teachers and students was targeted, together with matching the educational supply with employers' demand, the presence of courses offered within the faculty for transversal competences training, the quality of contacts between the two programs of collaboration and the level of participation / involvement of students. The following findings resulted:

- ❖ The teachers' research activity must be supported to the actual parameters in each university, as it is currently hovering between publications, participation in the various research centers and research teams established in the departments / master classes
- ❖ the students' research activity is mainly done following teachers' guidance (diploma thesis, case studies) and only to a lesser extent by engaging in various programs / projects from the departments / master classes
- ❖ in respect of the curriculum, entrepreneurship has not yet been integrated as an academic discipline and the courses which develop such competence still remain low

- ❖ also, the courses that develop the critical thinking and leadership remain low
- ❖ courses that develop the ability to work with computers, teamwork and communication skills are better represented in the university
- ❖ the practice is missing, such as application of knowledge in real life situations; theory is mainly applied, practice is overlooked, and also interactive and participative methods, as well as the latest technologies.
- ❖ the relationship between the university and the labor market shapes up in the university, especially through programs for achieving the internship for students and the organization of events and competitions, as well as offering scholarships
- ❖ the programs for hiring graduates is lower represented
- ❖ although legally regulated, the internship has a relatively low level in universities.

1.6. The Quality of Services

Within this dimension, the satisfaction degree of teachers and students regarding the rewards / incentives that are offered in the university is sought, but also their involvement in the mechanism of promoting changes in their university. It is found that: the Romanian academic teachers are rewarded mainly through awards, honors and diplomas rather than through public recognition and promotion; Romanian universities have started to show an increasingly openness towards students by offering them quality services, the university "product" does not yet enjoy the real interest of universities; certain limits are maintained in providing incentives (scholarships, settlement of subscriptions etc.)

1.7. Factors that facilitate and / or inhibit the change within universities

In higher education, **the factors that facilitated change within Romanian universities are:** the Romanian higher education reform associated with the Bologna process, universities' openness towards the social and economic environment by creating joint partnerships, projects / consortia, reducing public funding, the possibility of self-financing / fund management / fund access. According to teachers, **the main critical factors that occur in blocking entrepreneurial initiatives in their own universities are:** *bureaucracy* (Oil and Gas University of Ploiesti appreciates it as being in the first five factors - UPG 65.6%, The Bucharest Academy of Economic Studies - ASE 58.3%, Babes-Bolyai University - UBB 33.3%), *lack or failure of an entrepreneurial culture* (UPG 53.1%, UBB 51.1%, ASE 33.3%), *lack of financial resources*

(UBB 48.9%, ASE 41.7%, UPG 37.5%), insufficient cooperation with the business environment - F06 (UBB 42.2%), insufficient application of knowledge in practice - F09 (ASE 36.9%).

The results of our study are consistent with those of:

- ❖ Ropke (1998), Sporn (2001), Etzkowitz (2004), in respect of the critical factor which prevents entrepreneurial initiatives: insufficient cooperation with the business environment.
- ❖ Clark (2000), Sporn (2000) and Etzkowitz (2004) Bulai, Alfred and Bulai, Ana (2002) with regards to the factor - lack of financial resources and bureaucracy
- ❖ Miclea (2006) - the lack or failure of an entrepreneurial culture.

According to students, the main factors involved in blocking entrepreneurial initiatives in their own university are: *lack or shortage of an entrepreneurial culture* (UBB 56.4%, UPB 46.7%, UPG 39.2%), *lack of financial resources* (UBB 53.9%, ASE 46.3%, UAIC 44.2%, UPB 39.2%, UPG 34.5%), *insufficient application of knowledge in practice* (UBB, 44.7%, UPG 37.8%, UPB 32.5%, UAIC 31.7%, ASE 22.4%), *bureaucracy* (UPG 37.2%, UPB 36.7%, UAIC 29.2%, ASE 28.4%) *insufficient involvement of teachers, students* – due to the lack of incentives, rewards (UBB 37.6%, UPG 32.4%).

The existence of both common factors and specific factors of each university are found. Learning how to explore in an environment that is suitable for entrepreneurial development but also within pressing anti-entrepreneurial environments makes the difference between their own entrepreneurial success and failure (Larry Farrell, 2008:239). It is therefore necessary to minimize these factors, to find optimal solutions in order to be able to differentiate the university's development from one stage to another.

Is the Romanian academic environment able to integrate the entrepreneurial perspective? With reference to this question, both teachers and students had a moderate confidence in the idea that the Romanian university can make changes in this direction. However when we make reference directly to the university of origin of subjects, things change. Hence, traditional universities ("Babes-Bolyai" University and "Alexandru Ioan Cuza" University of Iasi) and the Academy of Economic Studies are considered by most teachers and students as entrepreneurial-oriented universities, while Oil & Gas University of Ploiesti is appreciated with a slightly lower share of 50 percent as part of the said entrepreneurial-oriented universities, and "Politehnica" University is appreciated in this way only by a quarter of students.

We can conclude in the same way as Ana Bulai and Alfred Bulai (2002) did, i.e. that Romanian universities have begun to go towards an entrepreneurial approach, however without integrating the five categories identified by Burton Clark as a whole. In order for the current changes to get consistency, they should not be considered severally, but in constant interaction, since only thus they can lead to a significant change. Moreover, a change occurs gradually,

through active and collective actions, conducted over several years (Clark, 2000:202), which is also desirable for the Romanian academics.

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