

“REINVENTING” ROMANIAN ECONOMIC HIGHER EDUCATION, A CHALLENGE OF THE KNOWLEDGE SOCIETY

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Abstract

The revival of Romanian economy could be reached by changing mentalities and by inventing new economic, political, legal and social actions. The Knowledge Society brings many challenges for Romanian people. One of these challenges consists in reinventing Romanian Economic Higher Education, beginning with the increasing of learning process attractiveness, diversifying teaching methods and practices, encouraging the research and the innovation.

The present paper aims to present specific regulations concerning the academic education, in order to identify the most effective applicable system in the current conditions of economic development. In a Knowledge Society, we need a well-trained workforce, highly qualified, able to use efficiently new informational technologies. Universities are held to cultivate the entrepreneurial spirit among their students, that of competitiveness and success in the profession and, therefore, they must encourage performance and excellence.

The research was conducted by using the information furnished on the one hand by Romanian legislation on education, on research and development, on SMEs, on structural funds. On the other hand, the research approach was based on the study of the literature in the field, including reference items such as works of applied and fundamental research. The originality of this paper consists in proposing to the Romanian Economic Higher Education to achieve the real needs of business environment.

Key words: *Knowledge Society, knowledge management, research, innovation, excellence*

Introduction

We are witnessing the last decades a number of phenomena that characterize the evolution of human society. They show that we are living in a period of deep changes defining the transition from the industrial society to the new type of society: that of knowledge. The most obvious feature of this new society consists in the speed regarding the introduction, the dissemination and the utilization of ICTs (Informational and Communication Technologies). At this point we should consider the speed with which knowledge is renewed, so that its volume doubles every five years. Knowledge is not just a component of the modern economy, but it becomes a basic organizational principle of human existence. Therefore, informational techniques will be considered during this study in relation to their role in knowledge's production and dissemination.

Romanian society could not exist any more outside of Europe. The evolutions taking place at the international level do represent a real chance for Romanian people during our transition from the industrial society to that of knowledge. As well as the rest of Europe, Romania has to manifest an increased interest in research and innovation. The state is required to assume a primary responsibility for financing scientific research as it is shown that scientific and technological discoveries do make possible the economic progress. The revival of Romanian economy could be made by changing the mentalities and by inventing new actions at the economic, political, social and legal levels. For this we should aim to modify people's behavior. An innovative behavior is linked to special measures on learning and professional training, on research and development. The reform of the educational system seems the only solution to our economic recovery.

The purpose of this paper consists in highlighting the challenges and implications of the knowledge society for Romanian Economic Higher Education. This study aims to provide the

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specific regulations concerning the academic education, in order to identify the most effective applicable system in the current conditions of economic development. In a Knowledge Society, we need a well-trained workforce, highly qualified, able to use efficiently new informational technologies. Universities are held to cultivate the entrepreneurial spirit among their students, that of competitiveness and success in the profession and, therefore, they must encourage performance and excellence.

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1. Challenges of Knowledge Society for Romanian people

Change does represent one of the fundamental laws of the society's evolution and to know the change's process could lead to competitiveness in a true competitive environment. In the new economy, named also *the knowledge economy*, main resources are not represented by the material resources or money, but by knowledge itself. This concerns the human and social capital. Knowledge assures the equitable distribution of resources but also the mobility of labor factor. This change supposes a complex process which follows: to reinvent the behaviors, actions and objectives; to generalize IT&C utilization at global level; to reform the higher education system; to create a new status for scientific research with focus on innovation and fundamental research. Informational revolution offers to developing countries possessing intellectual capital a unique chance to skip over traditional stages of the evolution process. By their policies, governments should support IT&C domain through some special measures meant to encourage the development of information society. We all know that passing to an information society is not a simple and common process. This supposes a true revolution: on the one hand, we think of a technical revolution and, on the other hand, of a mental one because "navigation tools upset our way of thinking and our reasoning"¹. Observing the changes produced by the industrial and managerial revolution, Peter Drucker arrives to consider that "what we mean now by knowledge is effectively information in action, information orientated to results"². He also thinks that „we are living nowadays in a society whose primary resource consists in knowledge"³. Information does represent a valuable good, but its value concerns its capability to be transformed into knowledge. Informational technologies associated to knowledge and to communication modify both the production process and even the society, leading to a sustainable economic growth. It is the moment for the Government to encourage research and innovation: it is the way to obtain the competitive advantage. At this point we take into discussion

¹ Musso, P., 2002. L'économie symbolique de la société d'information, *Revue européenne des sciences sociales, Cahiers Vilfredo Pareto*, XL (123), pp. 91-113, <http://ress.revues.org/618>

² Drucker, P.F., 1999. *Societatea post-capitalistă*, București: Ed. Image

³ Idem 3

“the spectacular changes in technical and economic paradigm”⁴, by which we could modify the production style, the effectiveness and the quality and also the management style that will use very performing technological tools. Therefore, we could not choose between computers and telecommunications: computers assure information’s processing and telecommunications its transmission. They both form “the central nervous system of the XXI century’s economy and they contribute to the future growth and well-being”⁵.

Internet has become a communication tool and it is also the source of information knowing the greatest expansion in the entire human civilization. Informational economy’s convergence by the means of IT&C, of Internet and of electronic trade gets important values. International economic landscape is changing and organizational structures are reconfigured at all levels. In such a complex world, full of uncertainties, change could not respond only to material needs; goods representing change’s objectives become true informational flows. It is the moment for projecting mutations for classical organizations to partnerships based on research-development-innovation (RDI). Information technology denotes the convergence of standards, hardware, software, telecommunications, Internet, electronics and technologies resulted⁶. As a consequence, it is necessary to change the deployment of affairs and this change will become a true challenge for academic and business environments. We could not develop in Romania a competitive knowledge-based economy unless we solve the problem of the cooperation between business community and that of research and innovation. We should reinvent our economic higher education system; otherwise we will wait for a long time positive results in our economy. General culture has to be doubled by a practical culture, specialized, an entrepreneurial one. Creating a relay higher education with excellence centers should become the basis for the reinvention process of education.

Unfortunately, progress in Romania could not be compared to scientific and technical phenomenon because of the lack of perception and comprehension concerning the importance of ethics and innovation for politicians. The promotion of Romanian business environment has to be oriented to the innovative SMEs. In this respect, we should stimulate the creativity by highlighting the new technologies’ role in consolidating the commercial and production activities. We should also encourage the cooperation in order to improve the databases necessary to facilitate the SMEs’ access to the results of scientific research. It is imperative to create business partnerships which follow an effective technological transfer. The present paper proposes a free transfer towards interested enterprises in researches’ results obtained during R&D programs by the means of public funds. The economic activity must be realized with high-trained, educated and well-informed employees. In the current conditions it is necessary for people to benefit of lifelong learning. Reinventing educational system supposes *a new learning paradigm*⁷ considering technology a true investment. Among the features of this paradigm there are the following ones: university is seen like a real social partner; university has to provide market value; educational system must be centered on market and on business needs; universities have to be financed by the market; we are supposed to pass to a multidisciplinary approach⁸. Knowledge society involves a series of changes at the academic level too; universities are held to change their services, furnishing learning in a way adapted to the newest needs. This new type of learning must take into consideration the acquisition of some skills like:

⁴ Freeman, Ch., Soete, L., 1997. *The Economics of Industrial Innovation*, 3rd ed., Abingdon, Oxon: Routledge, pp. 295-366

⁵ Hall, P., Preston, P., 1988. *The Carrier Wave: New Information Technology and the Geography of Innovation 1846-2003*, London: Unwin Hyman

⁶ Ruiz-Mercader, J., Mereno-Cerdan, A.L., Sabater-Sanchez, R., 2006. Information Technology and Learning: Their Relationship and Impact on Organizational Performance in Small Business, *International Journal of Information Management*, 26 (1), pp. 16-29

⁷ Heydenrych, J., 2002. Global Change and the Online Learning Community, *TechKnowLogia*, aprilie-iunie, Knowledge Enterprise, Inc., http://www.techknowlogia.org/TKL_Articles/PDF/381.pdf

⁸ Idem 8

communication skills, lifelong learning, leader and team spirit, critical reasoning, the ability to adapt to changes and also a responsible attitude⁹. It is the moment for the academic environment not only to receive information, but “to build knowledge”¹⁰. In this respect we could appreciate that the organizations encouraging knowledge and technology will have spectacular results in their economy. Used by the enterprises, the researches’ results could become in the future true commercial opportunities. Companies activating in business environment have all the reasons to use educational institutions in order to develop new models of thinking and of management which they will apply in their current activity. Tools like: *Porter’s five forces*, *the Balance Scorecard*, *the Black-Scholes equation* were developed by the academic environment and after that, they were successfully implemented in business. Thus, beginning with these examples, we could hope that the partnerships between academic environment and enterprises could represent the lever to the revival of Romanian economy.

2. The perspectives of Romanian Economic Higher Education

In the context of a knowledge society, Romania needs a highly qualified workforce, able to use the new technologies. Higher education is responsible of learning and training. But, among the universities, even the companies have to manifest interest in training their employees in order to survive in the information society. The cooperation between educational system and business environment will create the premise of the competitive advantage. The concept of competitive advantage could not be taken into account by ignoring that of quality. The latter represents a true successful factor for all the levels. The educational quality system refers to the mechanism by which universities provide trust to their internal clients (employees, students) and to external clients, too. This system supposes a series of policies and processes focused on maintaining and on increasing the educational services’ quality. In this regard, in Romania we foresee the need of creation “a quality culture”¹¹. In our country, the legal framework of quality assurance in higher education services is provided by Law no 87/2006 that approved the Government Ordinance no 75/12.07.2005. In the same time, this framework is also furnished by Order no 3928 dating from 21.05.2005 issued by the Ministry of Education and Research, by the External Evaluation Methodology, by reference standards of Romanian Agency for Quality Assurance in Higher Education (ARACIS). The latter provides the list of performance indicators which constitutes the basis for universities’ assessment.

In spite of all these, until now, we have encountered a lot of difficulties in the definition of the concept concerning *the culture of educational services quality*. We agree that the concept promotes *excellence* as a determining factor of competitiveness for the institutions providing educational services. Experts believe that we should take into account a certain behavior related to the quality, a focus on the benefits of educational services which are held to be understood through their role in producing training as well as a result consisting in their quality of future partner. Educational services will intervene directly in the economic life and contribute to its evolution as a whole¹². Achieving excellence in all the university’s activity will influence the sustainable relation between economy-academic and business environments. Knowledge society brings to the forefront the informational and communication technologies. They influence all areas of activities: economic activity, educational activity, private and public administration etc. Therefore, the higher education system must be adapted to the IT&C and also to the needs of knowledge society.

⁹ Rowley, D.J., Lujan, H.D., Dolence, M.G., 1998. *Strategic choices for the academy: How demand for lifelong learning will recreate higher education*, San Francisco, California: Jossey-Bass Publishers

¹⁰ Inglis, A., Ling, P., Joosten, V., 1999. *Delivering digitally: Managing the transition to the Knowledge media*, London: Kogan Page

¹¹ Sârbu, R. et al., 2009. Calitatea în serviciile educaționale din învățământul superior: asigurare, management sau excelență? *Amfiteatru Economic*, XI (26), pp. 383-393

¹² Idem 12

Unfortunately, in spite of the Bologna Process adoption, in our country there is not an optimum education system whose focus would be on practice and that respond to the market's real needs. Romanian higher education is a faithful mirror of the entire society. Therefore, it is mandatory to correct the deficiencies making difficult the alignment of Romanian educational system to the efficient European systems. This study presents also the differences between the existing specializations and professional careers in Romanian and international socio-economic environment. As Romania's economy is shrinking every day, the European labor market maintains its vitality in order to attract teenagers who are not able to find a job in their country. The lack of an adequate education environment, the lack of a lifelong learning and the lack of research possibilities, of material incentives, all these justify *the brain drain phenomenon* so developed in Romania. This artificial intelligence would have brought to Romania's development a more important added value. The contemporary knowledge economy requires the capitalization of these talents; this is the lesson given to us by the Western developed countries.

It is also imperative to link Romanian higher education to European careers in order to prevent the allocation of funds to some specializations that are no longer on the market. Another major weakness manifested is the poor financing in terms of research or even the absence of it. If we consider the American universities, the Japanese ones and the greatest European universities, we will observe that their budgets are build on important contributions from private companies. It would be ideal to have in Romania a few research centers funded by multinational companies. The results obtained would be used by enterprises in order to bring to Romanian economy the competitive advantage in the struggle on the European and global markets. Especially now, in such conditions of crisis, Romania reveals its deep economic problems. Many international companies have used the local area for the cheap labor and also for our legislative possibilities to export quickly their profits.

Another issue treated during this paper consists in the research fragmentation. After 1990, the greatest part of Romanian research institutes had taken off universities in order to pass to Romanian Academy. At present, they complain of funds' absence which prevent them doing research and, especially, attracting young researchers with studies and works within the greatest Western universities. Some of the threats of this system consist in imposing formal barriers by the management of universities or colleges. At this point we should take into account an assessment of all the existent research centers in order to make the inventory of their resources, both human and material ones, and of their collaborations with the European and international research institutes, of papers and magazines published. The present paper proposes a solution consisting in the creation of some private research centers having legal status allowing them an easier access to the European funds for their own projects. This proposal could help research institutes to participate successfully at the European scientific competition.

A competitive educational system furnishing lifelong learning would be able to develop human resources by its contribution to the increase of skills, of creativity, of initiative and of value spirit. We could not ignore the fact that, besides the well-trained workforce, the European labor market requires high standards of mobility, flexibility and professional retraining. By analyzing the statistics in the field, up to now, we noticed that no university from Romanian space succeeded in entering the Shanghai Top of the 500th most performing universities in the world. Czech Republic, Poland and Hungary are presented in this top while Romania remains completely excluded. Among the differences that separate Romanian universities from those in Shanghai Top, there are the following ones: the innovation capacity of our economy is at least one third of the European average (according to the annual European Innovation Scoreboard), our incapacity to capitalize the intellectual property; the persistence of serious problems connected to the financing of education, to poor quality of education, to the absence of an effective management, centered on performance and excellence. In the meantime, the state does not assume his responsibility for setting as national priorities the allowance of funds according to different skills and to market's needs. Therefore, the involvement of business environment and of local communities is absolutely vital for starting the

projects concerning the reform of the educational system. But the results will be visible on the long term and they suppose a radical change in the mentality and behavior of each individual. Romanian economic higher education needs a transformation at the level of *quality (teaching, learning, research)*, of *financing* and of *management*. The mechanisms which assure the quality in education and the development of a performing quality management should be considered as areas of major interest promoting the competitiveness of Romanian education. In this respect, we should have some main directions of actions like: the correlation of Romanian higher education with the European systems; the increase of public and private funds granted to the research institutes and their distribution according to their specific potential and to national development priorities; the introduction of an effective evaluation system of researches' results with focus on concrete results. An institutional innovation specific to knowledge society giving relevance to higher education and to scientific research consists in the creation of some *heterogeneous networks of cooperation*. The fundamental idea of these networks supposes to joint their resources in order to achieve the added value. In Europe, these groups called *Innovation Relay Centers* aim to disseminate rapidly the innovations, particularly in countries with limited research opportunities. The objective of such cooperation is to promote innovations in business. It is desirable to achieve in Europe the networking of excellence centers in research and to join scientific communities, companies and researchers from other areas. The use of Internet has already facilitated the development of an *online learning community* in Romania, too. In general, online systems could improve learning process because students are exposed directly to a lot of case studies. In the meantime, they are connected to distance partners enjoying communication and collaboration. A method like this encourages the expression of their views about the topics discussed, so that reasoning and critical thinking are activated¹³. The implementation of new technologies in universities is more than just buying computers or creating web-sites. The successful use of these technologies for teaching and learning process supposes major changes in organizational culture. New technologies are designed to increase the flexibility of learning process and to improve students' skills, students being regarded as future specialists. However, new technologies could increase even the pedagogic effectiveness and also the profitability¹⁴. Therefore, Romanian universities require an adequate technological infrastructure which satisfies academic and administrative needs. This infrastructure should allow an optimum space to innovation. In order to achieve their objectives, universities must understand exactly the cost of new technologies. For this purpose, they are held to make transparent the expected cost according to it they will appeal to serious funding from the business environment.

3. Romanian academic management based on knowledge

The organizations' capacity to adapt to economic requirements depends on the development of a new type of management centered on knowledge's values and those of scientific creation. A major challenge of this century, *the knowledge-based management* appears like a result of knowledge's progress. This new system of management develops only in the knowledge-based organizations named as "collectivities of workers charged with the work of conception, interconnected by the means of a technological infrastructure"¹⁵. As I have already shown during this study, to get performance is not possible without new knowledge, without the permanent involvement of scientific research which represents the basis support for the new type of management brought into discussion. In one of his papers, Ovidiu Nicolescu sustains that the knowledge-based management consists in "studying the managerial process and the relations based on knowledge, in discovering the laws governing them and in creating new systems, methods and

¹³ Ibidem 11

¹⁴ Bates, A.W., 2000. *Managing Technological Change: Strategies for College and University leaders*, San Francisco, California: Jossey-Bass Publishers

¹⁵ Holsapple, C.W., Whinston, A.B., 1987. Knowledge-based organization, *Information Society*

techniques in order to increase the performances and the functioning of organizations, by valorizing the greatest values of knowledge”¹⁶.

Romanian organizational environment could not make exception from the global orientation of the contemporary society towards knowledge and advanced technologies. At the level of debates, the concepts of economy, organization or knowledge-based management have penetrated Romanian higher education. The research projects designed to this field know a significant presence within the themes of fundamental and applicative researches issued by the institutes in our country. In Romania, there is no an institutionalized system of initial or continuous formation of managers from the academic environment. Therefore, we feel an acute need to improve mechanisms within the managerial structures as well as to reorganize the managerial system in order to assure the increase of consistency and effectiveness at the decisional level. By the means of strong scientific research projects, of sustainable actions for the dissemination of researches’ results, all the institutions involved should find solutions in order to surpass their organizational limits. Scientific research represents the guarantee of Romanian economic progress on the medium and long term.

After the resolution of problem concerning the academic management, new favorable opportunities will appear for Romanian economic higher education. As a consequence, the projects and partnerships developed in the academic area and also in the business one could make from Romania, in the future, a *true spiritual leader* and also one of the most credible international suppliers of leadership. A series of projects in different stages of evolution succeed in joining prestigious education and research institutions, huge intellectual resources that have the power to move ideas modeling the future of education and the dynamic of innovation¹⁷.

Conclusions

The present paper highlights the challenges of knowledge society with its implications for Romanian economic higher education. One of these challenges consists in reinventing the Romanian economic higher education beginning with the increasing of learning process attractiveness, diversifying teaching methods and practices, encouraging research and innovation. This paper focuses on the fact that, on a long time, knowledge society’s success depends on the interest manifested towards the research, particularly the interest coming from the higher education level which has an essential role in the training and development of entrepreneurship and of leaders. The analyses I made for this paper and, especially, the reality lived lead us to conclude that education in Romania is deficient. The economic higher education can not respond to the needs of business environment, both the internal and the international ones. Knowledge society involves a lot of changes in the mentality and behavior of individuals and of institutions too. In business environment we need excellent skills at which we could arrive only by the means of the active intervention of educational institutions. The state itself must participate at this process by encouraging research and innovation, by allowing the necessary resources according to the national priorities and also by reforming the educational system. We could not ignore the fact that, in the future, the research activity would have a significant weight in universities’ assessment. This evaluation would be developed during the internationalization process of Romanian higher education. There are some weaknesses which should be corrected like: the educational politics without continuity (the destabilization of national educational strategy); the unfavorable legal framework for the academic

¹⁶ Nicolescu, O., Plumb, I., Vasilescu, I., Verboncu, I., 2004. *Abordări moderne în managementul și economia organizației*, București: Ed. Economică

¹⁷ Batali, A., 2010. România lărgeste frontierele cunoașterii prin proiecte educaționale de anvergură, *Market Watch*, iulie-august, nr. 127, http://www.marketwatch.ro/articol/6991/Romania_largeste_frontierele_cunoasterii_prin_proiecte_educationale_de_anvergura/

autonomy; the absence of a homogeneous and structured academic supply; the insufficient resources and space for the development of academic activities; a cognitive training against a formative one.

However, the current context offers a series of advantages for Romanian economic higher education like: a multitude of information opportunities at a high level; financing opportunities especially by the means of structural funds; the possibility to achieve strategic partnerships between universities and multinational companies and also partnerships between universities and business environment by the means of SMEs. Romanian higher education should achieve the performance of generating economic results which would be transferred to companies for their own use. The conclusions of this paper highlight the idea that information, as well as the participative business organization and the implementation of a knowledge-based management would influence the revival of Romanian economy. In the meantime, this paper aims to develop some directions for future researches. One of them proposes to find the possibility of accessing more effectively the European funds designed to research and innovation projects. Another direction proposes to study the application in practice by the business environment of the researches' results as a premise of the competitive advantage.

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