



DEVELOPMENT OF THE HIGHER ECONOMIC EDUCATION IN BULGARIA

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ABSTRACT

Contemporary education requires the implementation of appropriate teaching methods and approaches, providing for the active participation of the students in the academic and research scholarly activities. The value of each method is to be judged by the extent to which it promotes active participation and stimulates students to pursue personal development and to acquire new knowledge. Contemporary approaches and innovative methods in teaching and the organization of the process of education help to achieve a higher degree of efficiency in the education system.

The goal of this research is to study the development of economics degree programmes in higher education in Bulgaria, to track down the existing problems and to indicate possible solutions for dealing with them.

The following subtasks will serve to fulfil the main research task:

- To study the available literature and normative documents related to the problem;
- To analyze the current condition of higher education and track down the existing problems in Bulgaria and in other countries;
- To propose some directions for the development of higher education in Bulgaria;

Information sources are normative documents, data from official statistics, own research and etc.

Key words: higher education, economics, perspectives

INTRODUCTION

More than a century ago Ivan Shishmanov as Minister of Education of Bulgaria said: "The educational factor is of great significance in the modern state, both for the economic welfare of society and because of its political system". Educational policy is "belief in the power of education ... through education our nation can be radically re-educated". [9.10]. Even today these thoughts are relevant.

For the period of 2005 to 2010 the educational structure of population aged 25 to 64 in Bulgaria continues to improve. The proportion of people with higher education increased by 1.6 % from 21.6% in 2005 to 23.2% in 2010 (NSI, 2010) [13]. The average proportion of people with higher education in the EU is

32.2%, correlated to that in Bulgaria, the difference is significant - 9%. Also greater is the share of population with tertiary education compared to that in Bulgaria: Germany - 29.4%; Spain - 39.4%, Netherlands - 40.5%, UK - 41.5%, France - 43.3%, Denmark - 48.1%. And difference is found also compared to Flungary - 24%, Latvia - 30.1%, Poland - 32.8%, Estonia - 35.9%, Lithuania - 40.6%. [4.11]

Strategy "Europe 2020" has set a mission before the higher education: by the year 2020 for 40% of people aged to 34 in the EU to acquire a bachelor's or master's degree. According to preliminary estimates, it appears that at the end of the program period there will be at about 800 thousand or 2.7% fewer graduates between the ages of 30-34 [5].

The purpose of this paper is to examine the condition of higher economic education in our country, to reveal its accompanying problems and to propose measures for solving them in the context of strategy "Europe 2020".

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This study covers the period of 2000-2010. Information sources are legal documents, official statistics, own research works and others.

THE HIGHER SCHOOL AS AN “INPUT-OUTPUT SYSTEM”

Complexity of higher education and its specificity suggests educational institution “high school” (University, College) to be presented as an “*input-output system*” (Fig. 1)

Reasons for the use of systematic approach in studying and analyzing the high school are given in the works by Peter Drucker where educational institutions along the lines of business institutions are presented as systems requiring effective management. But their management approach must be different. This is due to differences in objectives of educational and business institutions, and the “product” that they “produce” and “offer” on the market is different. [1,2]

The entrance to the “high school” (HS) consists of secondary education graduates who wish to acquire higher professional qualifications. They are the ones who having received the level of knowledge in secondary education predetermine the input level, i.e. the mark range of enrolled freshmen at the university (college). On this basis, a starting level of established quality of training is formed in high school, respective to specialty. According to NSI data in academic 2010/2011, the number of students in all schools is 615.6 thousand with highest proportion of those in the field of “Engineering and technical professions”. Second place is taken by students who study economics in “Economic Sciences and Business Administration”. [13]

Unlike business institutions, educational institutions “entrance” is not the expenditure (for purchased raw materials), but it is the amount of revenues collected for fulfilled activity (fees for applications and training of students, state subsidies). On this basis, another important difference stands out between the business institution and the educational institution. Therefore, the larger is the number of enrolled students (i.e. input), the greater are the revenues of the HS. As a result of this reality in recent years we have seen a significant increase in the intake of students in the country.

The product coming out at the output of the “high school” system is the specialist - BA,

ATANASSOVA - KALAYDZIEVA T., *etal.* MA, Ph.D., possessing higher qualification. The quality of education depends on the level of acquired knowledge and professional skills, and they in turn determine the efficiency of intellectual labor. In this context, Peter Drucker states: “economic leadership will belong to countries that most successfully increased the efficiency of intellectual labor” and he adds: “the emergence of people of intellectual labor and their productivity, they will cause fundamental changes in the very structure and nature of the economic system”. [3]

The effective application of the revenues and the quality of the educational product depends on the internal structure of the “high school”. This makes it necessary to reveal the essence of each of the subsystems making up the “high school” system:

Legal and institutional subsystem (LIS) is a legal and institutional framework for implementation of the educational process and research, and on this basis, the built organizational management structure and created control bodies, the formed structural units - faculties, departments and chairs in HS. The make-up of this subsystem is based on the provisions of the four sections of this Higher Education Act (HEA). [6]

The institutional framework of HS determines its type - public or private, its status - university or college. Quality evaluation of LIS and the degree of development of this and other subsystems of the HS, which are assessed at the institutional accreditation, determine different educational and qualification degrees (specialist, bachelor and master), in which students are trained.

Subsystem “trainee-trainer” (TTS) is a set of trained students, academic and administrative staff (employees, inspectors, etc.). [6] The number and professional qualification of academic staff of HS largely depends on the number of students and annual revenues (taxes and subsidies), which they bring to the HS. The latter are a major prerequisite for the development of academic staff and material information subsystem of each university and college. The availability of sufficient financial resources creates conditions for the application of modern training methods, as well as for research and the quality of training largely depends on the opportunities created for faculty development. (Fig. 1)

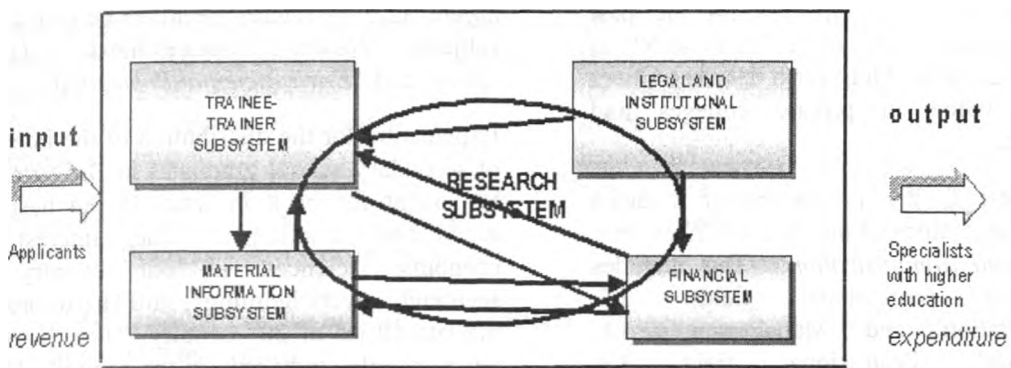


Fig. 1. Higher School (University, College) as a complex input-output system

Material information subsystem (MIS) is a database available - auditoriums, classrooms and laboratories, information systems for the education process. The amount and quality of the constructed MIS predetermines admission of students to the higher school, types and methods of their training. The degree of development of this subsystem affects the formation of the educational capacity of HS, because they bring a certain size requirement for the training of a student (different in other professional fields) to ensure the quality of education.

Financial subsystem (FS) is the high school annual budget extent and sources of its formation and how to manage it (Article 90. Paragraph 4 of the HEA). To this subsystem it can be also added the value of the owned assets that are embodied in property and equipment (Article 89, paragraphs 1 and 2 of HEA), making up MIS. Now the principal place of funding sources for higher education is taken by *the state subsidy* (Article 90, paragraph 3, item 1 of the HEA), formed as a student dependence, different for separate professional direction. Second are: *financial support from municipalities, endowments, bequests, etc.* (Article 90, paragraph 3, items 2 and 3 of the HEA, if any). The third source of funds are their *own revenues*, generated for the various HS in different ways, according to legislation: 1. From research, consulting and creative, remedial and sports activities and industrial property rights, copyright and other proprietary rights; 2. Fees for application for training and income from training (Article 21, paragraph 2, 3, 5 and 7 of the HEA), 3. Postgraduate qualification; 4. Administrative services for persons who are not students; 5. Other activities related to educational process;

6. Revenue from leasing property for rent (Article 90, paragraph 3, item 4 of the HEA). Research subsystem (RS) is differentiated from faculty, graduate students and support research staff, scientific and technical laboratories and established funds for research in HS. Therefore, it integrates parts of other subsystems described above, as the core activities of universities and colleges are educating students, graduate students and implementation of research. Thus the educational process is updated by newly made discoveries, the development of academic staff is fostered, conditions are created for intellectual recognition of HS in Bulgaria and abroad.

STATE OF HIGHER ECONOMIC EDUCATION

Based on the systemic nature of the high school, the state of the higher economic education in this country is analyzed below.

Legal and institutional subsystem. In academic 2010/11 of the total number of HS - 53 in this country, in 32 of them (60.4%) students are trained in the field of "Economic Sciences and Business Administration". In 23 universities, 2 academies, 6 colleges and 1 international HS specialists are trained in the professional field 3.7. "Administration and management" in three educational and qualification degrees (EQD). And in 18 universities, one academy, 6 colleges and 3 universities or in 28 (or 52.8%) of all HS the training is in the professional field 3.8. "Economics".

Subsystem "trainee-trainer". In recent years, the total number of students in Bulgaria increases. In the beginning of academic 2010/11 the trainees in three EQD are 287.6 thousand, or over 44 thousand as compared to

in 2000/01. The ratio of the trainees in the public HS to the private HS for the past academic year is 77,8% to 22,2%, at 88,5% to 11,5% for 2000/01. Only for a decade trainees increased twice in private colleges and universities.

The highest is the proportion of students trained in specialties of the field of *"Economic Sciences and Administration"* /This includes only two professional fields: 3.7.

"Administration and Management" 3.8.

"Economics". Professional field 3.9.

"Tourism", which according to NEAA (National Evaluation and Accreditation Agency) is in educational field 3. Social, economic and legal sciences, by the classification of NSI is relative to the field of *"Sport, Tourism and Hotel Management"*).

- 25% (2009/10), as for the period it has increased by 4%. Admitted freshmen by state order (excluding those in private HS) in academic year 2010/11, in the field *"Economic Sciences and Administration"*, including professional field 3.9. *"Tourism"* there are 13218 students. In the new academic year 2011/12, their number has increased by 1118 students more, so they reach - 14338 (Table 1).

Second preferred area of higher education in Bulgaria is the field *"Engineering and technical professions"*, where 13.8% (2009/10) of all students are trained at 16.8% in 2000/01, or there is a reduction by 3 %.

Third in importance is the educational field *"Science of society and human behavior"*, in which 12.7% of all students in the country are trained, for the past ten years the interest in these subjects remains.

At the same time 2 times less interest is in the area *"Training of Teachers and Educational Science"*, in which about 5.5% of all students are trained in 2010/11, and 10.6% in 2000/01 academic year. Similarly, the dwindling number of students can be seen in the areas of *"Humanities"*, *"Nature Sciences"*, *"Physics and Chemistry Sciences"*, *"Mathematics and Statistics"*, *"Mining and Manufacturing Technologies"*.

Contrary to this trend over the last decade, there is an increasing intake of students in *"Sport, Tourism and Hotel Management"* (4.0%), *"Architecture and Construction"*

ATANASSOVA - KALAYDZIEVA T, et al. (3.2%), *"Informatics"* (2.8%), *"Security and Safety"* (2.3%). Interest seems to be kept in the subjects: *"Health"*, *"Social Work"*, *"Law"*, *"Arts"* and *"Environmental Protection"*.

Explanation for the distribution of the interests of secondary school graduates in Bulgaria can be sought for back in time on the basis of established traditions. "The interest in economic sciences in our country is, seemingly, overwhelming", said Hristoforov in the late 40-ies of 20th century. "Ten thousand young people study only in the capital". These are "between 20% and 25% of all students in Sofia" who are educated in two training institutions - National Higher School of Finance and Administrative Sciences at Economic Department of Law Faculty at the Sofia State University. This "great army" of "economist students", said Hristoforov, is joined by students in higher economics at Economic Sciences Faculty of University "St. Cyril the Slav of Bulgaria" in Varna and those of the High School of Economics and Social Sciences "D.A. Tsenov", in Svishtov - "a total of 3000 people". When the country's "capacities of the average Bulgarian citizen to support his sons and daughters at university or college are significantly limited due to the appreciation of life and lack of the most basic conditions for academic pursuits, where there is housing crisis in the capital and the other two cities". [8] (Table 1)

Interest in the social and business sciences and law is great in most European countries too. It turns out that in their highest - 33.9% is the percentage of students trained in these areas. In Latvia, 53.7 percent of all students studying economics and administration, then it is Romania - 51%, Cyprus - 49.9%, Luxembourg - 45.2%, and then in Bulgaria it is 44% [11].

The total number of teachers in universities and specialized higher schools in Bulgaria during academic 2009/10 was 21.3 thousand, and 13.3 thousand or 62.3 percent of total of them are engaged with major work. Currently, college teachers are 1385, and 608 or 43.9% of them are at major work. [13] On this basis, the ratio "number of teachers per 100 students" for the country is 8.38, but for teachers of basic contract this ratio is even lower - 5.23. For some HS, which have several thousand students annual intake, the amount of this figure is significantly lower, as UNWE - 3.16; University of Economics in Varna - 2.61;

Academy of Economics “D. Tsenov” in Svishtov - **2.52**; Economics Faculty at the University of Veliko Tamovo “St. Cyril and Methodius” - **2.51**; Economics Faculty at Plovdiv University “Paisiy of Hilandar” - **1.47**. Exceptions are rare where this ratio is above the national average, as in a professional field of “Economics” at “Assen Zlatarov” University in Bourgas - **25.13** or in the same

field at Technical University in Gabrovo - **19.25** etc. [7] In recent years, the necessary taking of a lower teachers to students ratio in the field “*Economic Sciences and Business Administration*”, due to constantly rising intake and relatively unchanged teaching staff, affects the quality of training, work with students and the level of their knowledge.

Table 1. Student Intake in 2010/11 and 2011/12, in the field “Economic Sciences and Business Administration ”

University	acad. 2010/2011	acad. 2011/2012	VARIATION
University of Sofia	365	630	-35
University of Plovdiv	700	695	-5
University of Veliko Tarnovo	445	451	+6
University of Shumen	154	140	-14
South-West University	581	590	+9
Technical University Sofia	108	130	+22
Technical University Gabrovo	160	180	+20
University of Rousse	275	290	+15
University of Forestry	90	105	+15
University Professor Dr. Assen Zlatarov Burgas	465	465	-
University of Food Technologies Plovdiv	136	161	+25
Higher School of Transport	90	90	-
University of National and World Economics (UNWE)	4030	4555	+525
University of Economics Varna	2609	2620	+11
Academy of Economics D. Tsenov Svishtov	2277	2500	+223
Agricultural University	147	147	-
Thracian University	250	250	-
College of Telecommunications and Posts	259	259	-
National Military University	50	50	-
Academy of Interior Ministry	29	30	+1
TOTAL	13220	14338	1118

Financial subsystem. The share of public expenditure on education in Bulgaria from 3.78% of GDP for 2000 increased gradually to 4.2% in 2007, followed by the decrease in 2010 and 2011 to about 3.6 %. Private sources of funding for education from 0.7% of GDP in 2000 decreased slightly to 0.65 percent in 2007 and by the current year to about 0.6%.

Public expenditure on education in the EU for the last decade is from 4% to 7% of GDP, and private sources of finance from 0.2% to 1.4%. The highest public expenditure on education is

in Denmark - **7.98%** of GDP, following Cyprus - **7.02%**. In Sweden, it amounts to **6.9%** and to **6.8%** in Malta. The lowest proportion of public expenditure of GDP on education is in the EU: Greece - **4%**, Slovakia - **3.79%**, Romania - **3.48%** and Luxembourg - **3.41%**. Significantly higher the level of public expenditure of GDP is in some of the new members of EU: Czech Republic - **4.6%**, Estonia and Lithuania - **4.8%**, Latvia - **5.07%**, Poland - **5.25%**, Hungary - **5.41%**. Also the level of government expenditure of GDP allocated for education in the old Member

States is higher than in Bulgaria: Germany - 4.41%, Italy - 4.73%, Portugal - 5.25%, Austria - 5.44%, Netherlands - 5.46%; UK - 5.48%, France - 5.58%, Belgium - 6.0%.

In the EU-27 in academic year 2006/2007, the average annual expenditure on public and private educational institutions per pupil/student amounted to 6003 €, as they were 10 times higher in Denmark - 14308 €, than those in Romania - 1438 €. In academic year 2000/2001 in Bulgaria a student was provided with 1326 €. The amount of € 2,139 gradually increased for acad. 2006/2007, but still it remains on one of the lowest levels of all the EU Member States [11].

Research subsystem. The main challenge for Bulgaria is to achieve the objectives of the European Ministers for Science set in Barcelona - reaching *an average of 3% investment* in research. But the government's refusal to commit to specific annual growth rate of public expenditure on science put this country in a position of seriously "underperforming" against the EU average. With constant share of 0.48% of GDP by 2009 and only 0.55% for 2010 at the EU average of 1.83% and decreasing trend for two-year budget forecast to 0.3% of GDP, one could not ensure quality of research and maintaining the necessary educational and scientific potential in order to develop the national economy. For the EU as a whole and for individual countries such as Germany, Finland, Sweden, Denmark, France, the majority of investments in science are not of the public, but of the private sector (corporations, banks, business associations, etc.) Presence in this country of the only two funds "Research" and "National Innovation Fund" is still insufficient for the development of research. At the same time, there are no sector research programs and specialized programs in a national scientific field. Over the last decade the field "Economic Sciences and Business Administration" is not a priority research area for our country. To this we should also add the fact that only 0.1% of resources from the EU Structural Funds and national operational programs can hardly be used for research and only 3% of these are provided for innovation, while in the EU they exceed 30%. As a consequence, the country remains in a low patenting activity of Bulgarian enterprises, especially SMEs - only 4.3 patents per million inhabitants, with 128 patents in the EU.

The main conclusions of the analysis are as follows:

- In Bulgaria in the early twenty-first century, interest in the higher education has increased and especially in training in the field of "Economic Sciences and Business Administration". The situation in most European countries is similar;
- High is the proportion of higher schools which conduct courses in professional fields of "Administration and Management" and "Economics" in three educational and qualification degrees (EQD). This follows from the fact that in recent years the realization of graduates in economics is more successful compared to other graduated specialties, and insurance income is higher [7];
- The proportion of students studying at private HS has increased, as well as in the whole for the country and for majors in the sciences and business administration;
- There are considerable differences between individual HS not only in their legal and institutional subsystem, but also in the subsystem "trainee-trainer". There are differences in the functioning of the financial subsystem (budgets) of individual high schools, hence resulting opportunities or constraints for development of their academic staff and material information subsystem;
- The ratio of number of teachers per 100 students who are trained in Economic Sciences area is predominantly low and significantly below average;
- The proportion of public expenditure of GDP on education and science in Bulgaria is generally declining. In this respect, the country is in a position of "lagging" compared to other EU countries.

GUIDELINES FOR DEVELOPMENT OF THE HIGHER ECONOMIC EDUCATION IN BULGARIA

Development of higher economic education in Bulgaria will increasingly be influenced by labor market demand for specialists with higher economic qualification, as it creates a necessary social product, on which the development of the country's economy depends. This requires reform of the high schools. But the public institutions must be committed to this process as more useful are indirect forms of regulation reform, rather than direct ones. Application of administrative measures to reduce the number of HS in the

country, such as are provided by the *Decree to provide budgetary resources for optimization and upgrading of state educational institutions*, including those which prepare specialists in the field of economic science and business administration will not overcome existing financial problems, and will not improve the quality of educational product. On the contrary, it will create new social problems.

In this connection the experience of one of the leading universities in the world may be indicated, the one in Cambridge. In 2000 it trained 11000 BAs and 4500 MAs. 3800 professors and researchers work in the university. The ratio of number of teachers per 100 students is 24.5, i.e. almost 3 times higher than the average in Bulgaria. In 1990 the university developed and launched its own “*Modernization Program*”, being prompted by the fact that traditional ways of funding (government grants) are insufficient for the development of science and technology. The ambition of the university is to be the leading scientific and educational institution prompted it to seek cooperation with the business. Guided by this idea the then Vice-Chancellor of the University Alex Broars contracted 10 world famous companies for joint research: “Microsoft”, “Rolls-Royce”, “Hitachi”, “Toshiba”, “Seiko” and others.

At the same time the British government in the face of the then finance minister Gordon Brown, who believing in “the ability of science to become prosperous trade or business products and processes”, assisted the building of two new funds: “Fund for Innovations in Higher Education” and “Fund for Cooperation between Higher Education, Business and Society”, through which entrepreneurship centers were established in eight universities, including Cambridge. A year later, the university leadership united that center with three of its research consultants and set up “Cambridge Enterprise”, on which basis a university company called “Cambridge University Technical Services Limited” was set up to protect the intellectual property right. It became the owner of the created intellectual product and made agreements for their licensing. The main objective of the university company was to promote development of enterprises for the implementation of newly created intellectual products. They started working together with teachers, PhDs, students and persons outside the university. Thus

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emerged the so-called techno starters, and based thereon new enterprises have been registered that are financed with less government funding than through grants, business angels and venture capital funds [12].

The aforesaid example could also be applied in Bulgaria to intensify partnership between the institutions of education and science, innovation and business. In order to be successful in achieving its educational and research activities the modern Bulgarian University needs to cooperate with other institutions (public and private) as the third main objective. This will ensure a diversification of financial sources and it will help to commercialize the scientific product, and it will ensure the realization of HS graduate specialists. To some extent, separate legislative changes have been initiated in this direction, but they are not sufficient to change the vision of Bulgarian higher education.

What we need is a common strategy for development of education and science in the context of “Strategy 2020” which should determine gradually the aims and ways of their achievement. When developing it should include representatives of HS, business and government agencies by focusing on the processes of improving the quality of training, growth of research and academic staff, whose main task is to achieve European and world levels. In this connection it should increase the use of Structural Funds for implementation of the objectives and effective involvement in the European roadmap for research infrastructure.

It is necessary for the modern model of education to apply the methods and approaches that ensure active participation of students in teaching and research in HS. Through the active involvement of students in permanent governing bodies and temporary committees of universities and colleges, they will become directly involved in solving the encountered problems. From passive observers they must become partners in the work of HS. A periodic survey of the trainees’ views creates an opportunity for feedback and updating the curriculum. On the other hand, surveying the views of graduates and those who are realized in the specialty, and their employers can be a basis for comparison and the answer to the question - “What else is necessary to improve the educational process?” To meet the needs of practice.

What is needed is a well established and successfully functioning inter-university information system to inform students not only for their student status, but also for any changes in the HS, and hence for their resulting rights and obligations. The value of each approach should be judged according to how well it contributes to the manifestation of activity and encourages students to learning and career development.

In conclusion, this development does not claim a comprehensive solution to all problems in the higher economic education. It is rather an attempt to offer solutions to some of the problems because we are convinced that investing in the higher education is the key to increasing the competitiveness of Bulgarian economy and providing the required standard of skilled workforce.

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