The economic scientific research, a production neo-factor

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Abstract: *The scientific research represents a modern production neo-factor that implies two groups of coordinates: preparation and scientific research. The scientific research represents a complex of elements that confer a new orientation of high performance and is materialized in resources and new availabilities brought in active shape by the contribution of the creators and by the attraction in a specific way in the economic circuit. It is the creator of new ideas, lifting the performance and understanding to the highest international standards of competitive economic efficiency. In the present, the role of the scientific research stands before some new challenges generated by the stage of society. It's propose a unitary, coherent scientific research and educational system, created in corresponding proportions, based on the type, level and utility of the system, by the state, the economic-social environment and the citizen himself.*

Key words: economic progress, incorporability, moral wear, the non-additive character, the reporting, the proper documentation, capitalization.

The scientific research represents a modern production neo-factor, which has a decisive influence on the evolution of the economy on the broad paths of the sustainable growth. It can fulfill the multiple functions it is given, in deep relationship with macroeconomic policies, which are meant to galvanize the general economic progress.

The understanding of the economic scientific research problem as a production neo-factor implies two groups of coordinates. The first category is that of preparation, of pro -

fessionalism, with its formative educative aspects regarding the research staff; the second one refers to the content of the proper scientific research, with its aspects regarding knowledge and creation.

Because of the major economic stake and the predominantly axiological chronology, the achievement of the scientific research aims are placed at a high level in the public attention, the actions and responsibilities implied by the scientific research being, firstly, of national interest for the entire population.

The scientific research seen as a production neo-factor represents a complex of elements that confer a new orientation of high performance, giving them, in general, a dynamic ascending, intelligent and innovating character. The components of the scientific research are specific elements of accession in the production process, in the entire economic activities, representing modern necessary and sufficient conditions for developing these activities that have as result economic goods.

The scientific research is materialized in resources and new availabilities brought in active shape by the contribution of the creators and by the attraction in a specific way in the economic circuit, by allocating and consuming them according to pre-established destinations chosen by economic agents modern manufacturers. In this sense, the research operates and conveys systematically scientific data that are distinguished as existential entities with a certain degree of generality. The scientific research is deeply involved in the production complex, as well as the in the circulation complex[1].

Using the scientific data as an object of economy involves the emphasis of some specific characteristics[2] like: **incorporability**, namely the information, as an intellectual elaborate, has a symbolic, immaterial nature, so that we must not mistaken it for the physical support on which it is recorded in order to be transmitted or used; **durability**, namely the information has a perennial existence and it's consumed without being destroyed, no matter how long it's been used; **moral wear**, namely the evolution of knowledge determines the superannuation of the existing information content that becomes obsolete for using, making way for a new one; **the non-additive character**, namely for a holder the addition to an existing information of a an identical one in content and shape is economically unjustified.

This kind of characteristics connect with other characteristics that refer to human nature information in regard to origin and final destination, as well as to the role of information as a substitute for other resources (mat-

[1] See, *"Economie"*, 7th edition, The Economic Publishing House, Bucharest, 2005, Chapter 9.

[2] Some specialists consider the contemporary science as a "neo-factor", as being one of the most important economical progress resources, an immediate productive force (see Aurel Negucioiu, „Dezvoltarea mai rapidă a științei, lege obiectivă a lumii contemporane" („The faster development of science, the objective law of the contemporary world"), in the „Analiză și prospectivă economică" („Economic Analysis and Prospective") magazine, no.3/2006). We assimilate this opinion considering it important and useful, but we think that science is not only in the production area involved, but in the circulation area as well, being concomitant and satisfactory. That is why I state that the contemporary science is an important production neo-factor, involved in modern production (this modern production having a new content and a new expression) and in all components of the current circulation sphere. The scientific research has become an endogenous factor of the entire economic activity, a new and important modern resource, with a great productivity capacity in the economic system.

ter, energy, work), being capable of free and co-available propagation through communication. Thus, the information exercises its' presence and effects in the scientific research in the entire cycle of life of the production factor. The scientific research generates intelligence carrying wealth, contributing to the definitive escape from utopia and periphery. It is the creator of new ideas, lifting the performance and understanding to the highest international standards of competitive economic efficiency. Of course, this implies the probity of the scientific researcher, the veracity of the explicative model and its exercise for synthesis and solutions, without eluding the fact that the ideas can't be deprived of the generosity with which they determine feelings, impressions or emotions.

The new production factor has a dynamic character being in a mutual relation with the essence of society, in the sense that it is, at the same time, the cause and effect of its evolution. In the present, the role of the scientific research stands before some new challenges generated by the stage of society. Some specialists consider[3] that **the level of informational society** has already been over-passed, the informational society being characterized by the adoption of the computer as a work, communication and daily life instrument, transcending to **the knowledge society**, based on creativity, innovation and its capitalization for the good of mankind.

Romania is in a special state, being able to compress the stages of this natural process, transcending from a poor and impoverished country situation to a situation where it has an educated population decisively connected to material culture flows increased by a high performance, permanent and financed accordingly scientific research, in the higher educational system, as well as in the institutionalized units of scientific research.

In order for this to happen, the scientific research and educational system must be made a national priority. We support the idea that they must be conceived and achieved in a unitary, coherent scientific research and educational system, created in corresponding proportions, based on the type, level and utility of the system, by the state, the economic-social environment and the citizen himself, without mentioning the disparate segments or delimitations on diverse restrictive criteria. The acceptance of this system in cybernetic sense must determine its institutionalization and promotion as "communitarian patrimonial monopole", to which it should be participated with a thorough professional-scientific background, in precise conditions and with an appropriate economical and social-cultural finalization. This system is a public good, regardless of the institution property form that it promotes, stimulating the development of society and the capitalization of the human with its' needs and interests.

The proper scientific research[4] is a complex process of scientific knowledge that includes scientific creation and education, systematic in schools, contributing to the economic-social progress (Figure 1).

[3] **Ion, Gh.Roșca,** *„Învățământul superior, O abordare postindustrială" („The higher educational system, a postindustrial approach")*, Theoretical and applied Economy, AGER Magazine, No.1, Bucharest, 2006.

[4] **Constantin, Popescu** and collaborators, *„Metodologia cercetării științifice economice" („The economic scientific research methodology")*, ASE, Bucharest, 2006.

THE PROPER SCIENTIFIC RESEARCH

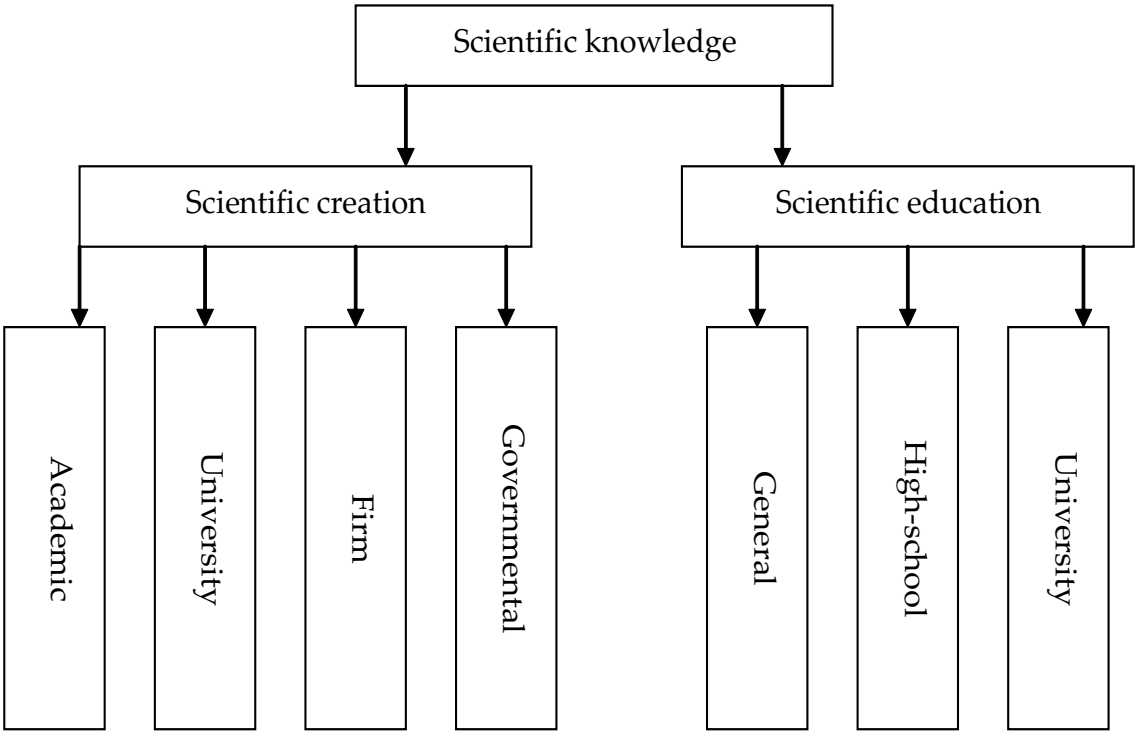

Figure 1

The two components of scientific knowledge overlap in the university area. We point out that:

1. in the university system, a thorough professionalized educational process is pro - vided and, for the most part, updated in ac - cordance with the new scientific conquests;

2. in the university system, the students learn to execute scientific research and, prac- tically, perform it under the teachers' guid - ance.

We also introduce in the content of sci- entific knowledge the scientific education, taking into consideration the fact that each new research subject in the active period of a person implies an accurate past knowledge of all interdependent phases and stages of sci- entific research. Nobody can create anything before rigorously learning the scientific cre- ation of the predecessors. This doesn't mean that we deny the specific differences between education and creation; we underline, in fact,

the need of continuity in research through the permanent evaluation and capitalization of the previous works.

This way, we emphasize that the word "create" means to invent, to conceive something new based on following certain informational circuits and on discovering specific connections, while the word "educate" means to seize science, to attain and understand what science has already conquered.

The organic interdependency of these two sides is imperiously necessary, but we must take into consideration that not any education automatically transforms into a scientific creation and, at the same time, the danger of conservationism settling in and the knowledge to become obsolete may emerge on both sides. This is why it's useful to permanently operate, under all circumstances for the active methods promotion that participate in the process of logical education and for the flexible organization of the scientific creation, by viewing and rendering more efficient every stage of the scientific research.

The scientific research involves many stages, each one of them having interdependent operations, phases or specific sub-phases, namely each of them being connected to the precedent and the successor, without a rigid delimitation between them or in their absolute succession.

In this context, we emphasize the special significance of **the economic phenomenon explanation, the formulation and checking of the scientific hypotheses and conclusions**. In general, these reflect the creative content of the entire scientific research discovered and systematized through methodological operations like: scientific observation; hypothesis elaboration and theoretical model building; conclusions and solutions substantiation; analysis and economic measuring methods, techniques and instruments definition; creation of new hypotheses and models elaboration and testing procedures etc.

In this stage, operations that contribute greatly to the crystallization of the scientific research as a production neo-factor are accomplished. Here the impact of the phenomenon or of the economic process on the selection and usage of the most different calculus and analysis methods and techniques happens, the hypotheses and theoretical constructions (models) are elaborated and verified, the proportion in which the scientific researcher disposes of all options and knowledge that the study of a certain phenomenon implies, is affirmed and verified, the act of scientific creation locates in essence.

Also, in this stage the greatest efforts for improvement and modernization of scientific research, as well as for its methodology, are made, increasing the economic science capacity to stimulate the efficiency of the real economic activity. But, also here the most part of errors and drawbacks that are reproached to economic science manifest themselves. The synoptic presentation of this stage is significant (Figure 2).

The underlying of the importance of this stage must not leave the impression of underestimating the other stages; each stage has its' functions and contributes to the sum that we are trying to achieve in the explanation, evaluation and stimulation of the economic phenomenon or process, in the continuous flow of its renewal.

THE PLACE WHERE THE ECONOMIC PHENOMENON AND THE METHODOLOGY OF ECONOMIC SCIENTIFIC RESEARCH IS EXPLAINED

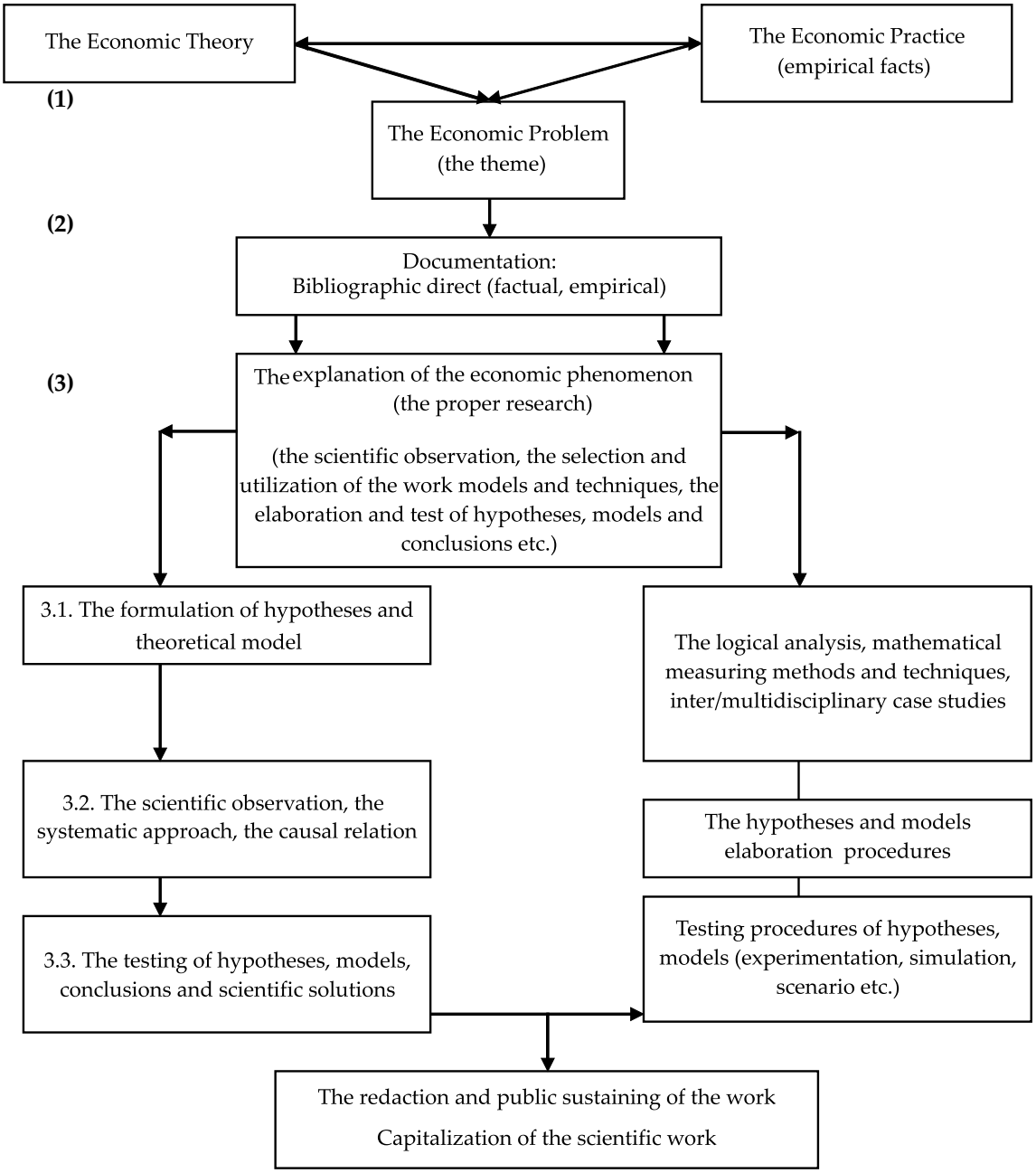

Figure 2

The economical problems accrue from the constant confrontation of the existing theory with the new empirical facts. They become research subjects and are proposed to be approached and solved by researchers individually or in research teams. The solving process of an economic problem is attained on the basis of two actions: a **creator-constructive** one, where hypotheses are elaborated and formulated; and a **critic-capitalizing** one, where the constant testing of hypotheses takes place (Figure 3).

THE GENESIS OF ECONOMICAL PROBLEMS

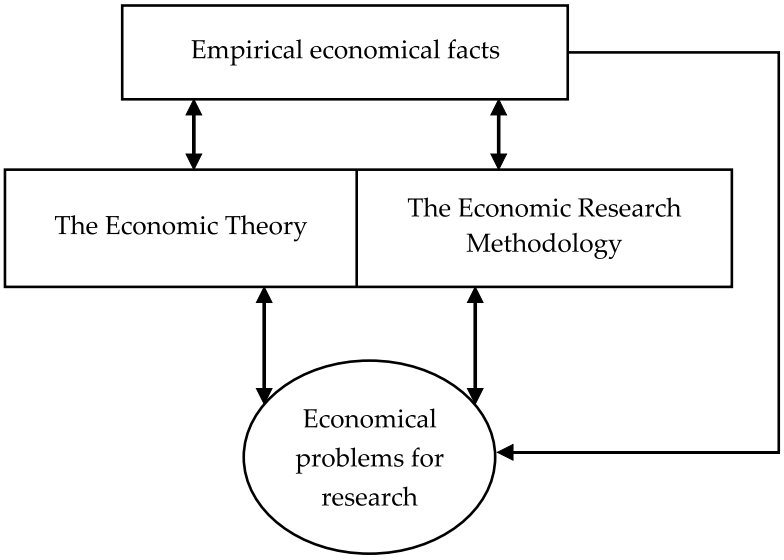

Figure 3

The economical problems can be the result of falling behind on an economic activity aspect or another or can be formulated by researchers based on the desire to develop the economic science. The knowledge of the economic theory insufficiency in regard to the empirical facts, the evolution of real economy, is the most fertile moment of economic scientific research and, at the same time, the hardest because of the complexity and dynamism of the internal and international economic life.

The documentation for the scientific research has a complex content determined by two components: scientific reporting and the proper scientific documentation. **The reporting** is the complex process through which a specialized unit of the documentation network systematizes the scientific literature on well established criteria and provides the beneficiary the result by adequate methods. **The proper documentation** is the process through which the specialized unit provides the solicitant with the documents requested by him after the first process, the reporting.

The explanation of the economical phenomenon or the proper research is the

most complex stage of the scientific research methodology because in this stage deep observance, hypothesis, interpretation, conclusion and testing related operations of the researchers' conclusions and proposals are attained through adequate methods, techniques and procedures. It generates the incubation or the illumination that materializes into a theoretic or pragmatic discovery of great significance for the economic science and for the development of real economy.

The writing and public reading of the scientific work is next, as well as its **capitalization,** through which the social value of the respective scientific research is, in fact, validated.

Hence, the legitimacy of the scientific research as a production neo-factor is reflected through, its capacity to capture the perennial function of the scientific knowledge in individual decisions and actions, as well as, especially, a new social-economical reality defined by major attributes like: the predominance of the conception acts and of activity logic guided by projects; the systematization of the practices characteristic to the work based on the rigorous scientific knowledge and the extension of specialists professional training; the proliferation of activities based on scientific research in the detriment of those strictly accustomed; the development of a scientific research "industry" and of a specific market for this industry etc.

In these circumstances, the intellectual property in modern society is crystallized more clearly, together with the main groups of rights associated to it: rights regarding the object of the intellectual property and moral rights of the researchers and scientific research institutions. Under the legal aspect, the object of intellectual property is protected through special procedures like: copyright; patent; trademark etc.

In the context of Romania's accession to the European Union the importance of scientific research is increasing, as an individual and communitarian necessity in the effort to adapt to the national economic environment, as well as to the international one. Currently, more than ever, you do research to know much more than you knew until now and to approach in a good way a new step of the economic activities. The scientific research must help to better satisfy the current needs, so you can create because this action is better paid, so you can go forward through occupations and ranks, so you can feel freer in society.

Furthermore, the Romanian scientific research must relate not only to the European continental integration exigencies, but also to the world globalization ones. It is the only way in which the Romanian can stay a Romanian, and win and live anywhere in the world, where he feels more fulfilled; this changing also the meaning of concept of nationalism, also globalized in a world of profound scientific knowledge, creativity, innovation, a civilized and modern world under all aspects – economical, social, moral, in behavior.

The global dimension of the economic scientific research is obliging us to prevision the liberalization of the scientific research market at a global scale, making possible for research antennas of the research institutions from outside our country to appear in Romania. This way, it will be even harder to keep up with the competition at home and it will even harder to export the scientific research with its results.

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