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THE KONWLEDGE ECONOMY- THE ONLY SOLUTION FOR THE ROMANIAN EDUCATION INTO THE EU INTEGRATION EQUATION

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Abstract:
In the new knowledge society, the intangible assets, like information and the information and knowledge management, become the new competences' nucleus. The knowledge becomes the only really relevant resource. The innovations' diffusion and the high technologies' convergence will play a key role in the knowledge importance acceleration in the globalization context. A knowledge based organization can a new entrepreneurial spirit bring. This can the top managers motivate to be preoccupied by the organization transforming. The advanced knowledge and technologies can significantly transform the national economy.

In the new knowledge economy, the market becomes practically a synonym for the markets actors' resources fighting. In these new conditions, of imperfect, unequal and distortional competition, not only the demand's and supply's law actions, but the forces report becomes determinatively. From these forces report the most powerful actors and not the best ones, win. The knowledge can be seen as the most important resource, which for is seek to be attracted by the most powerful countries (brain drain); this represents in fact the main instrument for the global market domination or the main ware (an intangible asset). In the new knowledge economy and society the intangible assets like information and the information and knowledge management, become the new competences' nucleus. In the prof. J.B Quash, from The London School of Economics, opinion, we live in a world that put the accent on the economic value of the intangible assets. We talk about the cognitive domains where the ideas are billions worth, while the products are more and less worth [4].

In the Peter Drucker opinion in future the success factors will be change: The traditional products factors – land, work and capital – not disappear but became secondarily. The knowledge becomes the only really relevant resource. The innovations' diffusion and the high technologies' convergence will play a key role in the knowledge importance acceleration in the globalization context [2]. So that the new economy request a production factors rethinking, knowledge becoming an essential component of the economical and social development system and the globalization represents a catalyses factor for the markets' concentration process.

The informational society not represents the same think like the informatics that is only an instrument. A new space appears (a new parallel medium), the virtual space, with one's own laws and principles.

For the explicit (available) knowledge capitalization and for the tacit (interiorized) knowledge available making, it is necessary the knowledge transfer in optimal condition realizing. The explicit (exteriorized) knowledge ensures the intermediating process as part of know how transfer; the tacit knowledge exists only together with its owner, being an individually, personally appropriated and performed information, a primary knowledge' codification, for others accessible only by the explicit knowledge.

As part of the intermediating process by the explicit knowledge, a part of the content is lost – the information can not be completely assimilated – and the maximum

transferability (not totally, because of the environmental changing) can be realized only by the person' transfer. So that the tacit knowledge bearer has a distinct importance and in the knowledge economy the central role come back to the labour force market and to the persons' circulation as the tacit knowledge bearers

A knowledge based organization can a new entrepreneurial spirit bring. This can the top managers motivate to be preoccupied by the organization transforming in order to be able to capture, to apply and to develop the value as a result of the performing technologies implementation. The advanced knowledge and technologies can significantly transform the national economy.

Knowledge and information represents the important, competitive weapons in our days. Knowledge is more powerful and more valuable than the natural resources. The most important companies (like Microsoft and Toyota) became what they are not because they were richer than others (like IBM and General Motors), but because they had something more precious than physical and financial assets, they had intellectual capital. The 3rd millennium society disposes by the valuable employees thanks to their knowledge. In many of these companies the value consists of the intangible assets (named intellectual capital) and not of the tangible ones.

The labour force markets trends (knowledge carrying) lead to a new occupations' classification appearing: for penetrating, for development, for support and traditional.

The penetrating occupations – yield the knowledge stock and the technological inventions that are necessary in order to penetrate the knowledge society (ICT researchers, knowledge managers, researchers and innovators in biotechnologies, nanotechnologies, new materials, echo technologies etc).

The occupations for development – assume the knowledge and the inventions by the firs group generated and diffuse throw the productive sectors, generating the innovation (hard and soft producers in IT, system' engineers, specialists in new materials industries etc). They ensure the industrial competitiveness.

The supporting occupation – The professional users of the developing occupations creation; they ensure the new products and services market.

The traditional occupations – they continue the old activities, otherwise necessarily.

In the USA the biggest enterprises concentrate their own research or the universities' research (the main percent is owned by the universities) and the connection between research and production is ensured much more easily by the scientifically and innovative platforms and the know-how transfer is ensured by the frontier research where the market' mechanisms are not involved.

In the European Union research is realized with priority out side of the biggest enterprises and it is divided, fragmented on the universities and research institutes, disciplinarily specialized.

Getting start from the fact that innovation represents a complex process with many dimensions – technological, economical, social and cultural – and the knowledge is hard transferable directly, it is necessary to tack care by the fact that the knowledge transfer involve the market's mechanisms, but the solutions can be represented by the heterogeneous networks (experimental centres, experimental platforms), the clusters and the cooperation.

In Romania the XXIst society is trying to be developed by using the XVIIIth thinking and the industrial economy's mechanisms and not those of the knowledge economy.

The research and the education are treated, yet, like being services that funds consume and not like being the main ways for the added value realization. The incompatibility between education and research, the high resistance to change and the reform need represent only few elements that can be covered by the transfer operators.

But who are the transfer operators? Or what do they do? They joint four very important poles: education, research, enterprise and unbinding, ensuring the transferability (the capacity of a product that is generated by a pole, being directly assimilated and applicable by the others poles):

- Education → Research: training organizations, competences banks;
- Education → Enterprises: training organizations, competences banks, counselling organizations, devices suppliers, programme synthesizers, spin-off organizations and business angels;
- Research → Education: training organizations specialized in the research and innovating domain;
- Research → Enterprises: spin-off organizations, enterprises research personnel training organizations, counselling organizations and business angels;
- Research → Unbinding: Marketing Trainings;
- Big Enterprises → Small and Medium Enterprises (SME): Business intermediating - business angels
- Education → Unbinding: Marketing trainings
- Unbinding → Market: Direct Unbinding Organizations (Retail).

These four poles are very important thanks the functions that they carry out:

Education

The main Education's function is:

- Qualified personnel creation for those occupations that are able to generate the breaking off the actual economical-social structures reproduction;

The connected Education's functions are:

- Knowledge's and relevant for the innovating requests receiving experiences creation;
- Research appliances, brevets, documents, laboratory scientific elements, research protocols creation;
- Specialists' preparing for the different transfer's specializations.

Research

The main Research's functions are:

- Certified (validated) knowledge and inventions (brevets, marks, prototypes) production;
- Scientific and technological research personnel specialization;
- Documents, protocols, laboratory elements (tests, analyses) production;
- Work and inventions application instructions production;
- Research instruments production.

The connected Research's functions can be:

Throw the education transferable knowledge production:

- The Education personnel' specialization;
- The Personnel' specialization, from the enterprises having research activities.

Enterprise

Here it is necessary to distinguish between the big enterprises and the SME.

❖ *Big enterprises:*

- Assume the inventions and transform those into innovations as part off some direct productive tasks – ensure the research and education market;
- Establish the cooperation with the SME whom they transfer knowledge and innovation as part of the same action program.

❖ *SME:*

- ensure the whole social-economic system development by innovations' assuming

from the big enterprises;

- Labour places create;
- Some innovations produce;
- Enlarge the research and education market.

Unbinding:

- Ensure the market for the whole chain of, both the intermediary market of some users (the industrial products market), and as much as the real consumers market.
- Ensure the necessary in-puts on the whole route of the network working (when these are not assumed by the different stakeholders (non-governmental organizations for the quality control and consumers' protection, governmental agencies, specialized organisms of the EU) that are at the network joined;
- Ensure and create networks (system' integrators).

In Romania, the private sector (big enterprises) develop not enough the research and diffuse not enough the Knowledge and the innovation throw other organizations (SMEs). There is a slab emergently market for research-innovating sector. The knowledge is not transferable. For these reasons the specialists' need is been felt, but concomitantly those migration phenomena is recorded.

In these conditions the knowledge-innovating necessary can be imported from the extern organizations (Knowledge externalization), only if the specialists possess a tacit knowledge that is able to mediate the passing from the explicit knowledge – externalized – to that of the specialists – the tacit knowledge - that is in deficit.

It can be concluded that in these conditions the EU market competitors are based on the important research and transfer networks. The Romanian big enterprises (private or no) follow yet only the short-term objectives, so it can be said that they are not at the EU practices aligned.

The passage to the knowledge economy can have collateral effects (technical unemployment) and for an adequate action it is necessary a breaking in the occupational forming insurance: training of the specialists not for the existent specializations, but for the future ones.

As an observation, it must be said that in the EU 9.4% of the adult population take part at occupational forming courses; in Romania this percent decreased from 2.8% in 1999 to 1.2% in 2006.

In these conditions the government must abandon the „laissez-faire" style. It is necessary a governmental involvement in the heterogeneous transfer network forming (represented by the laboratories, computing centres, data bases, experimental centres, experimental platforms) for the fragmentation removal and market intermediating as part of the knowledge transfer process. The heterogeneous transfer network must the market remove only as much as necessary is.

Therefore a reconsideration of the Romanian education in order to form specialist in frontier research, role is imperative. This requests a universities, research centres and enterprises partnership.

Also, the inquiring thinking and the know-how must be formed and developed by the Romanian education.

It is necessary that the Romanian education realize passing from the knowledge assuming to the knowledge producing algorithms assuming ("knowing by doing", "knowing for doing").

In these conditions, Romania needs to initiate:

❖ A law project looking for the collective property right, specific for the heterogeneous cooperation networks;

❖ A forum-network having as object:

- The SME domain strategy discussion and establishment (them reports with the big enterprises and transfer stimulation);
- Proposals for the research institutions restructuring elaborating
- Relationships with the Romanian universities establishment.

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