

## NANOTECHNOLOGICAL DETERMINATION OF SOCIOSYNERGETICAL CONCEPTION OF KNOWLEDGE SOCIETY MANAGERS' PREPARATION

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### ABSTRACT

*Nanotechnological development of company value-creating processes in new-enforcing level of social division of labor objectively requires multidisciplinary and transdisciplinary approach in knowledge society managers' preparation. This role is possible to realize only through the system-entire epistemological paradigm– the sociosynergetics. Contemporary academic preparation of managers in decisive extent guarantees the quality only abreast of macrotechnologies and microtechnologies that are economically, energetically and ecologically untenable and historically overcome. Sociosynergetical management of company and society value-creating processes is being the challenge of the age.*

**Key words:** Sociosynergetics, Sociosynergetical management, Macrotechnologies, Microtechnologies, Nanotechnologies

### 1. NANOTECHNOLOGICAL DETERMINATION OF SOCIOSYNERGETICAL CONCEPTION OF KNOWLEDGE SOCIETY MANAGERS PREPARATION

To the present, civilization has known technologically three basic qualitative levels of value-creation processes in generation of the final product for a customer:

- macro-technologies
- micro-technologies
- nano-technologies

Each of these technologies originally historically rests on concrete flow of information level:

- macro-technologies on the socio-information
- micro-technologies on scientific information
- nano-technologies on sociosynergetical information

There is hidden the substance of the conception on sociosynergetical preparation of knowledge society managers.

Macro-technologies, historically primary linked with simple socio-information flow, were being the product of ordinary human experience from the process of adaptation of nature to its needs. These technologies arose from natural concentration, integration and centralization of experiential information transmitted from the generation on the generation.

In fact, material-technological as well as social processes reproduction was characteristic by macro-technological generation of the final product for a customer till the beginning of the industrial

revolution. This reproduction was territorially different only by intensity, frequency, density and volume of simple socio-information flow. Economy en bloc did stay not-knowledge. On the one hand, primitive socio-cognition made possible the creation of the values, but on the other hand did not make possible to reveal the objective patterns of natural inevitability economy functioning. For this reason, this economy could not be characterized as knowledge economy. Going from this premise, sociosynergetical science assigns all economic theories until the beginning of industrial revolution into the space of not-knowledge economics of not-knowledge natural inevitability economy, i.e. of economy of naked connection of live work with natural sources.

Relation “human – work subject”, i.e. basic value-creating relation of the society was always based on the knowledge if we did generate through it the final product meeting the interest of a customer. However, a society of this information flow level, of this not-knowledge economy efficiency, was not-knowledge society because its processes reproduction en bloc was also chaotic, not-knowledge. Also theft-value process based on slave labor was intensively developed along the value-creation process in conditions of natural inevitability economy. Live work degradation to natural source in the form of the slave stays still being the reality also in the 21<sup>st</sup> century even in economically the most advanced countries of the world. Except the drugs and weapons, business with modern slaves is the most lucrative illicit trade. According to the Reuters, annual yield reaches approximately 32 milliards of USD. According to international organization Anti Slavery International, there were 218 millions of children at the age from five to seven illegally working in 2006 and according to the campaign called Free the slaves, there are 27 millions of slaves in the world. [1] Reproduction of material-technological as well as social processes of all periods of industrial revolution was characteristic by micro-technological generation of final product for a customer with quantitatively different level of scientific information flow.

This economy was and still is being the economy of chaos. Human factor in this economy is degraded to a commodity what disables harmonic and free development of live work as being the decisive production factor of the society. Micro-technologies in connection with scientific information and former work generate the final product in micro-tolerance. This product meets requirements and interests of a customer mainly as not-knowledge subject. Value-creating process and its product was knowledge product however economy was not-knowledge economy.

Also the society of this information flow level en bloc stays being the **not-knowledge society**. It is the society of economic, energetic, ecological, world-view, value, ideological, political, moral, ethical and aesthetical chaos. During the period after culmination of industrial revolution, point of most progressive projection of value-creating process development is not a negation of present dominant micro-technologies and macro-technologies, but a change in the quality of their management by the prism of qualitatively higher intelligential level of a subject, qualitatively higher level of information flow and of former work.

On the present, macro-technologies and micro-technologies participate in global value-creating process of civilization and it is not possible to evaluate them as good or bad. Bare in mind, they are a reality in society reproduction processes. Question is what intelligential level of a subject they are managed by, what quality of former work they are profiled with and what quality of information flow they rest on. Otherwise said, a fact, that macro-technologies and micro-technologies are evaluated by sociosynergetical science as historically overcome, does not mean that they will not have their own place also in further development of civilization value-creating processes. Change in this sphere will be necessary to project in the quality of managerial staff preparation for the future reproduction of these technologies.

Industrial revolution period in the late 90's of the 20<sup>th</sup> century culminates and nano-technologies (as a product of system entire multidisciplinary and transdisciplinary cognition, i.e. sociosynergetical cognition) come into the sphere of value-creating processes. Genesis and evolution of sociosynergetical information is not only the consequence of multidisciplinary and transdisciplinary concentration, centralization and integration of scientific information, but primer assumption of its creation rests in human ability to pierce by the cognition to nano-space of synergistic, biosynergistic, sociosynergistic and psychosynergistic systematism. Science instrumentation, science technologies and science industry uncover step by step this possibility since 40's of the 20<sup>th</sup> century. However, reality of the space, in which university preparation of managerial staff in the first decade of the 20<sup>th</sup> century runs, disposes in the decisive extent by morally as well as physically obsolete science instrumentation, scientific

research technologies and science industry immanent to the micro-technological perception of the last century world. This base of scientific research enables only anticipation of sociosynergetical information not its direct production.

Projection of university pedagogues quality increase is based mainly on the principle how they did master what was already here and not on that what contribution for the future science development they are. Career growth of university pedagogues goes usually only by one way and in the sphere of some specialized qualification. In fact, to inaugurate is possible only in the field where is already appropriate number of professors from the sphere of the same science. Those are lecturers and professors only from one, maximally from two or three much related scientific disciplines. But this means that they dispose by the quality to educate the managers of value-creating process which rests maximally on micro-technological knowledge equipment. Otherwise said, they prepare the specialists at the most for 20<sup>th</sup> century.

However, coming of nano-technological quality in value-creating processes of the civilization requires an inevitability of multidisciplinary and transdisciplinary quality increase of university professors and lecturers. For university teacher, inauguration should open new sphere of the science, in which the professors are not yet, whereby the condition of own scientific school of future novice for being the professor would be really fulfilled. At the moment, university managerial preparation, mainly in so-called pure economic fields, generates managerial staff in decisive extent only as the subjects preferring dominant capital status and flows of other production factors are perceived as secondary. Knowledge and competence of effective management of natural sources flows and flows of human sources usage, speak nothing of the system-entire (siosynergetical) information flow absence. Absence of sociosynergetical information flow in the space of the universities just confirms the fact that our universities stagnated in the 20<sup>th</sup> century by quality of information flow.

Last years experience from the development of big transnational companies of micro-technological level of value-creating process (mainly automotive factory in the USA) shows that managerial theories, managerial skill, managerial practice as well as managerial staff “historically lost caste” by the knowledge of managerial science in the quality of the second level of social division of labor. [2] Dramatic fall of tenths of gigantic transnational monopolies in the 21<sup>st</sup> century was caused in decisive extent by the management in the knowledge quality of the second level of social division of labor which rests on dominant capital status and on micro-technological level of value-creating processes. One of decisive causes of this fall is undoubtedly not-knowledge economics of not-knowledge economy which determined knowledge levels of a subject in the structure of top management and of management of these monopolies.

At writing this study, it is practically symbolic when daily press brings “Valentine massacre” in the centre of American automotive industry – in Detroit, where automotive factory Chrysler announced 13 thousands employees lay-off (See Pravda – 16<sup>th</sup> of February 2007, page 10). Micro-technologies of this automotive factory are energetically, ecologically and economically unsustainable, morally obsolete, but physically not used-up yet. Enormous volume of a capital will jam in these micro-technologies, whereby an efficiency of its turnover will finish, too. Profit rule devours its own child – capital.

These falls of the monopolies should become a memento for our universities as soon as possible and should evocate to the enforcement of multidisciplinary and transdisciplinarity in scientific preparation of new manager’s generation, otherwise we will educate the specialist at the most for the last century. This task is possible to realize only through system-entire epistemological paradigm – sociosynergetics. Contemporary university managerial preparation assures in decisive extent knowledge quality only abreast of macro-technologies and micro-technologies that are economically, energetically and ecologically unsustainable and historically overcome. Sociosynergetical management of value-creating processes of the companies and society is being the call of time.

However, sociosynergetical projection requires advanced sociosynergetical science and its sub-systems – Synergetics, Biosynergetics and Psychosynergetics. [3] In the sense of this forwardness it is necessary to realize also the profile of the future manager of reproduction of material-technological processes of the companies as well as profile of managers of social processes reproduction as such. In conditions of Slovak universities, we miss more important segments to accomplish this task:

- sociosynergetically knowing specialists
- implementation of individual sociosynergetics sciences into the content of university preparation
- nano-instrument and nano-technological saturation of university education

Development of the reproduction of value-creating processes of economy and society does not make towards the negation of macro-technologies and micro-technologies as such but only towards the negation of macro-knowledge and micro-knowledge managing of these technologies.

## **2. CONCLUSION**

Existing theoretical frameworks of human resources management are being in crucial margin the product of culminant second level of social division of labour, incumbent on the flow of scientific information, its equivalent micro technologies and intelligential levels of subject. Managementship and leadership are immanently adherent to economics of chaos, incumbent on historic connection of three production factors. Dynamic formation of social division of labour new level that reclines upon the integrity of four production factors and nano technological quality of manufacturing detachedly needs the sociosynergetical management in usage of live work. Thus, managementship and leadership get into the historical confrontation with new quality also in human resources management – sociosynergetical management.

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