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THE FEATURES OF THE COGNITIVE CONE FOR THE TASKS OF THE SYSTEM AND FINANCIAL ANALYSIS

The information revolution is caused by the information avalanche and information overload, which directly initiates the creation, distribution and practical use of the diverse information resources, products and services, and also the variety of innovative information technologies of a new generation.

The cognitive cone acts as one from the ways of representation the cognitive model, along with “the cognitive circle”, “the cognitive ring”, “the cognitive cylinder” and “the cognitive sphere”, which are directly related with the problem spheres of their use in technics (informatics), economics, mathematics, biology and sociology.

The ways of presentation of the cognitive model are related with the problem environments of introducing and applying of the cognitive modeling technology: the fundamental sciences – technics (the system analysis, control and information processing: the monitoring of the nominal values of parameters of the technical means of measurement and the program means of data processing) and economics (the financial analysis and audit of the credit organization: the monitoring of the nominal values of parameters of the primary registers of accounting, the quotation tables and currency trends); the applied sciences – psychophysiology of sensory systems (the diagnostics and monitoring of the nominal values of parameters of the subject of research) and molecular biology (the diagnostics and monitoring of the nominal values of parameters of the biological construct of the organism of organic individual) and physical chemistry (the diagnostics and monitoring of the values of chemical composition).

The cognitive cone of the difficult object, process or phenomenon acts as the (re)constructed in volume (in width and depth) repertoire of parameters, which directly includes a conical set of portraits (ΠP_v^I) with a certain scientific justification and the mutually embedded simple cones at the two conical levels: sets of the kinds of properties (KP_v^J) and properties (Pr_v^K), sets of the vectors of parameter (VP_v^L) and elementary parameters (P_v^M).

A significant value is presented directly the central axial section of the presented cognitive cone (pic. 1).

The cognitive model in the view of the cognitive cone, taking into account the cognitive cylinder and the cognitive sphere, act as the general volumetric way of representation of the means of the system analysis of the difficult objects, processes and phenomena by means of use of the cognitive modeling technology, along with flat ways of representation: “the cognitive disk” and “the cognitive multilevel disk”.

Each cognitive model of the cognitive cone is directly related with the level (location) and the degree of importance of the element.

The cognitive model (CM) can move in the context of different levels of the cognitive cone, includes a set of various portraits (PR_i) in dependence from the purposes of the system and financial analysis of the object, process and phenomenon.

The portrait of the cognitive model (PR_i) can move in the context of different levels of the cognitive cone and the cognitive models, includes a set of the various kinds of properties (KP_j) in dependence from the degree of importance.

The kind of properties (KP_j) can directly move in the context of different levels of the cognitive cone and the cognitive models, includes a set of various elementary properties (Pr_k) in dependence from the degree of importance.

The property (Pr_k) can directly move in the context of different levels of the cognitive cone and the cognitive models, includes a set of the various vectors of parameters (VP_l) in dependence from the degree of importance.

The vector of parameters (VP_l) can directly move in the context of different levels of the cognitive cone and the cognitive models, includes a set of the various parameters (P_m) in dependence from the degree of importance on the surface.

There are a very large quantity of the directions of possible practical use of the cognitive modeling technology: for the system analysis of the difficult objects, processes or phenomena – my scientific monography “The features of evolution of the theory of information and information technologies on a threshold of the XXIst century” was prepared in 2004 y., 2007 y., for the system analysis of the information-educational environment – my scientific monography “The environment of automated training with the properties of adaptation based on the cognitive models” was prepared in 2005 y., 2007 y., for the financial analysis of the functioning of organization – my scientific monograph “The cognitive modeling technology for the financial analysis and audit of the organization” was prepared in 2004 y., 2007 y., 2010 y. and three my scientific monographies “The calculation of the analytical coefficients system for the vertical, (horizontal and trend) financial analysis and audit based on the cognitive modeling technology” was prepared in 2007 y., 2010 y.