

P. Voloshin, PhD, Assoc. Prof. (*KSUFTT, Kharkiv*)

STRATEGIC AND PROGNOSTIC MODELING IN CONSALTING

Gaming modeling and forecasting are an important method amongst the methods used for strategy and forecasting of production-economic systems management. We found that the simultaneous use of strategic game models and visual models provides optimal results in business forecasting.

The complex of strategic gaming and visual models of basic managerial processes was created, including the field of strategic business forecasting. The method for strategic modeling of complex situations in management and forecasting of business processes using visual models is developed. The effectiveness of introducing gaming and visual models in the practice of management activities of enterprises and organizations is shown. The method of game and visual modeling of business processes in teaching, management and strategic management is elaborated. Visual and corporal modeling is an effective method of business forecasting.

Visual Models are based on the theory of Planned Stage-by-Stage Formation of Mental Actions and Concepts by P.Y. Galperin.

Peter Yakovlevich Galperin was a great Russian psychologist, Professor of Psychology. Galperin's theory was used to develop the professional training programs and methods. Galperin's method made it possible to learn language and special skills in few months. The essence of the visual modeling method is a recording of "slow" verbal information to the systems of visual symbols-models, simple and clear for brains. The strategic game models and the visual models is a modern and promising method of encoding information in the practice of crisis management and forecasting. The use of game and visual models in educational practice greatly reduces the perception of new educational information facilitates its storage and later playback. Promising widely used method of strategic game and visual modeling flesh in advertising, marketing, management and business consulting.

The main feature of this method is the use of gameplay prognosis and management processes. As well as involving people involved in the development, conduct and interpretation of business games to simulate the business process. In this case, the strategic business (prognostic, training, research) game is called game simulation by a group of persons of the business process or the simulation of scenarios, trends, force majeure, performed on the metaphorical model of the object, or (if possible) in an environment, as close as possible to real. The new results were obtained by using a Structural Visual Method (SVM) and Visual Models; and tools of systems analysis and information technologies. Distinguishing feature of

this method is using colors to encode meanings in structural diagram. It made some complex science theories more understandable for non-specialists. The Structural Visual Method was used to achieve these objectives:

- To make a detailed analysis of some basic scientific theories.
- To develop Visual models resulting from this analysis.

The first scientific model which was observed is Alfred Korzybski Structural Differential. Main ideas that he considered: “No one can have direct access to reality”. “Human knowledge of the world is limited both by the human nervous system and the languages humans have developed”. “The map is not the territory”. Structural Differential is very useful model, but it is too difficult to understand. Because it shows the high level of abstraction at the bottom and low level at the top. We used Structural Visual Method to simplify Structural Differential and turned levels upside down. Next well-known scientific theory was Bloom’s taxonomy and his model of the three learning domains. This theory is a widely used tool by educators in the Western countries. In the USSR and post-USSR countries it is used very seldom. Instead of it A. Leontiev’s Activity theory was used as a framework, or a descriptive meta-theory for pedagogical and psychological researches. We used the Structural Visual Approach to connect Bloom’s learning Domains and Leontiev’s way of thinking and made minimal model of Mind. This model can help experts in different branches of science from different countries to understand each other better. To improve understanding of the Leontiev’s theory of activity we apply visual notation of IDEF0 and place the terms of this theory, in accordance with the rules of this notation. The next step of the analysis was evolving the elements of this model on levels of Korzybski’s Structural Differential. The study also showed a significant (more than 25%) increase in the accuracy of business forecasts and analytical calculations in the application of gaming and visual models. As a result of the research, the use of gaming and visual models as an element of strategic modeling of managerial, analytical and business processes is substantiated and proposed. The most productive is the simultaneous use of visual models and strategic modeling tools such as brainstorming and strategic business play. It is possible to recommend the continuation of research to develop active business consulting algorithms using visual models. Also promising direction is gamification of business forecasting and creation of unified visual coding algorithms for management information.