Materials of Conferences

ANALYSIS OF ASSESSMENT OF REAL ESTATE ON NEURAL NETWORK

Kudryashova E.Ye.
Volgograd state technical university
Volgograd, Russia

The goal of the development is a making the site "Assessment of real estate on neural network" for granting user possibility of the study of the procedures of the assessment of real estate and analysis of the assessment of real estate on neural network. This site gives a user a possibility of study of the procedures of the assessment of real estate: spent method, a revenue method, a method of the benchmark analysis of the sale. Also undertaking the analysis of the assessment with use trained neural network.

The core of this paper is analysis of assessment of real estate in Volgograd at the end of year 2006. This analysis based on artificial neural nets modeling. We was investigated predictive index of real estate requirements. Estimation was carried out using Deductor (neural modeling tool). Effective model of neural nets for forecasting problem solving is multi-layer perceptron. During learning neural net with backpropagation algorithm, neural net is capable to made most probable forecast if learning sample is well exact and wide. Base for learning sample was created from data of Federal Service of Staticstics from 1995 till 2004. As an input information were used following activities: average coefficient of flats' price increasing (%); average price of rent of holding (RUB per 100 square meters); average costs for forming housing (thousands RUB per square meter); commission of blocks of flats (million square meters per year). As in output information was used index of blocks of flats need per year. As units of blocks of flats need we take minimal space of housing (12 square meters). Macros BG_ExportToDeductor.xla allowed to export data to Neural Analyzer 3.0 (one of Deductor's modules). There are statistical sampling data are tuned in this window. Field 1 is informational because it contain information about years of statistical examina-tion. There are net parameters settings in this window: algorithm choice, function choice, steepness choice, and so on. In this case back-propagation algorithm was choose. It is necessary to make up learning sample for experiment. In this window statistical data are inputed for operative experiment with learned neural net. Neural net is consider learned if results of experiment agree closely with testing samples. If it isn't true then it is necessary to re-learn neural net.

Misprediction is from 4.29% till 10.34%. There are following data receiving from analysis second half year 2006. Average price of rent of holding 261%; average costs for forming housing (thousands RUB.) – 15180; commission of blocks of flats (million square meters per year) – 39; coefficient of price

changing 119, 8 %. Judge by neural net's forecast, commission of blocks of flats will be 4598. As neural net was mistaked, a result will from 4001 till 4598.

The work is submitted to the International scientific conference "Modern science technology", Tenerife, Spain, November, 20-27, 2008, came to the editorial office on 01.06.2008.

DIRECTIONS OF ORGANIZATION ACTIVITY ASSESSMENT WITH ACCOUNT OF ITS INTEGRATION AND INNOVATION ACTIVITY

Lyamzin O.L.

Novosibirsk State Technical University

Novosibirsk, Russia

Generally, the management of any organization consists insetting and achieving its final objectives (the result) by means of creating and redistributing of the resources – financial, personnel, informative and material-and-technical. In the extended comprehension, everything that can be used by the administration of an organization for the objectives achievement, including the business processes, the configuration of which represents a concrete means of the final value accumulation for the key influence groups (clients, first of all), comprises the category of organizational "resources". However, marking business processes out of the "generalized resources" of an organization appears well-grounded for receiving a clearer picture of the going on in the bond "resourcesprocesses", especially when studying the directions of the multi-industry integrated structure (MIS) participants' interaction. For providing an analytical support for the organizational result achievement it seems well-grounded to divide this process logically into four interconnected aspects (objects of managerial influences application objects) - Finance, Resources, Business-Processes, Products. The state of every following aspect in this chain is the sequence of a certain state of the previous one, and so is, in a certain manner, connected with the state of every of the aspects. Every aspect is characterized by its potential, i.e. the state for a certain moment, and the activity in realization of this potential on the part of the managing subject for a certain period. The required growth of potentials cannot be realized inertially, as a matter-ofcourse. This growth (representing the organization development) takes place only owing to the purposeful activities on the previous aspect's potential realization.

Thus, the very growth of the system of potentials through the assistance to their realization should be considered as one of the most important tasks of the managerial function of an organization at all the levels, and especially at the highest one – at the level

of the persons making strategic decisions, for the provision of the final objectives achievement.

The analyzed, compared to other profiled competitive structures, state of an organization potential on the aspect "Products" for the reference period beginning, and also its desired state for the beginning of the following period, forms requirements and, at the same time, detects the restrictions on all the rest potentials of the aspects in their chain. It, in its turn, makes an opportunity to come reasonably to the determination of possible directions of the integration of an organization with other structures, the directions requiring the realization in the reference (in case of strategic partnership) and following periods.

But the reflection itself, recording and impact evaluation of integration efforts of an organization, at the efficiency and effectiveness of its work is exercised by means of separation of that art of the aspects' potentials for the beginning of the reference period and their implementation during this period, the potentials being connected with the integration actualization.

Within the frame of the present conception there is also an opportunity to evaluate the organizational innovative work influence on the main activity. The degree of innovations influence on the potential of the aspect "Products" is mediated by the influence of innovations on the potential of every of the aspects "Finance, Resources" and "business-Processes". Such

an influence on the aspects, finally, is expressed in the growth of that *part* of every of their *potentials*, which can be acknowledged to be "*innovative*" for a certain moment. In its turn, the growth of the innovative part of every potential is achieved by means of purposeful managerial impacts on the *realization* of the previous potential in the chain, primordially oriented to this.

The given perspective suits the task of marking out the innovative activity in the "production and commercial" and management activities of the participant with the possibility of further recording and analysis of:

- a) its properly innovative activity development;
- b) the degree of its influence on separate aspects of the "production and commercial" operations of the participant (their potential and development), including that on the final product (potential "Products");
- c) the degree of its influence on the final product of the organization activity the achievement of its strategic objectives and mission.

The work was submitted to international scientific conference «Basic and applied research. Education, economics and law», September, 9-16, 2008, Italy (Rome, Florence), came to the editorial office on 08.08.2008.