

MODELING STATE OF THE MARKET OF INFORMATION PRODUCTS AND SERVICES USING ADAPTIVE FORECASTING METHODS

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The market of information products and services represents a system of economic, legal and organizational relationships intended for trading products of intellectual work for commercial purposes [1]. It is described by heterogeneous structure, as well as its disposition to change under the influence both of endogenous and exogenous factors. These features, firstly, considerably complicate the process of drawing up even relatively near-term forecasts. Second, they make the analyst continuously modify the used model in order to take into consideration the factor of indeterminacy and the evolution of dynamic characteristics of the studied processes.

On the basis of the existing constraints, the best solution for an accurate description of the subject area, will be the use of adaptive forecasting methods. Their implementation involves construction of self-correcting recurrent models, taking into account the dynamic properties of time series [2]. The most important step in the modeling process is the choice of the model type: Brown model, Holt model or autoregressive one. Most often it occurs at the stage of logical analysis of the system and initial data study. Since market intelligence data are heterogeneous, and the logical analysis is complicated by the presence of high degree of entropy, the final decision on the choice of an adaptive forecasting method, is usually based on a comparison of prognostic characteristics of several competing models.

Application of adaptive methods can be very effective in combination with the method of expert estimation. Combining forecasts values obtained by quantitative (adaptive) and qualitative (heuristic) methods, is performed by constructing a combined prediction [3]. On the assumption of heterogeneity of the system, the consolidation of variegated data within a single model can significantly improve the reliability of the forecast.

References

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