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**ANALYSIS OF THE CRITERIA FOR THE EFFECTIVENESS OF THE FORECASTING MODEL**

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***Abstract*.** *The paper considers one of the main stages of forecasting future values ​​of the time series based on its historical values, which are the basis for financial planning in the economy, trade, and management of complex geographically distributed systems. Such systems collect and store historical values ​​of economic, technical, financial, technological indicators in corporate databases. This factor significantly increases the amount of input information for forecasting tasks. At the same time, the development of hardware and software platforms increases the possibility of implementing increasingly complex forecasting algorithms. The task of forecasting time series is solved by creating a forecasting model that adequately describes the process under study.*

***Keywords :*** *group method of data handling, noise immunity in modeling, combinatorial algorithm, forecasting*

**Introduction***.*

Forecasting - the process of predicting the future state of an object or phenomenon based on the analysis of its past and present, systematically evaluated information on the qualitative and quantitative characteristics of the development of the selected object or phenomenon in the future.

Demographic projection is a scientifically sound prediction of the basic parameters of population movement and future demographic situation.

Demographic forecast requires multivariate:

• average (most likely course of events);

• lower and upper (external borders of the dynamics of indicators).

Estimates vary in the timing for which they are calculated. Currently, the practice of developing forecasts of different duration:

• short-term (current) - usually 1-3 years;

• medium term - 3-5 years;

• long-term - 5-15 (and sometimes more) years.

Modeling is one of the effective means of knowing the laws and patterns of the world. The essence of modeling is to replace the real process with a certain design that reproduces the basic, most essential features of the process, abstracting from the secondary, insignificant ones. Any construction - physical or mathematical - is a simplified, schematic representation of reality. The art of modeling is to know what, where, when, and how can and should be simplified. Of particular importance are models when studying the laws of mass processes, which are inaccessible to direct observation and are not amenable to experimentation. First of all, this applies to socio-economic phenomena and processes, the laws of which are formed under the influence of many interrelated factors and complexity is dominated by the laws of physics, chemistry or biology.

By their nature, socio-economic phenomena and processes are stochastic (random), probabilistic; uncertainty is their intrinsic property. The study of these processes, predicting the prospects for their further development, making optimal management decisions should be based on such models, which in the conditions of uncertainty ensure the constancy and reliability of conclusions.

In the process of reforming the economy, the demand for predictive studies of socio-economic processes at different levels of government and decision-making is increasing. The correct choice of the solution depends directly on the rationale.

Forecasting reveals stable trends, or, conversely, significant changes in socio-economic processes, assesses the likelihood of a future planning period, identifies possible alternatives, accumulate scientific and empirical material to make a sound choice of a particular concept of development or planned decision. Therefore, forecasting is a special scientific study of the development of phenomena.

A characteristic feature of modeling and forecasting of socio-economic processes is multivariance, the possibility of using different methods, models, information support, criteria for assessing the adequacy of the model, etc. The choice between competing options is based on a specific rating system that provides reasonable estimates for each option [1].