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## FORECASTING THE ECONOMIC ACTIVITY OF A TRADING ENTERPRISE USING WEB TECHNOLOGIES

Under the conditions of the global economic crisis, the dependence of enterprises on inflationary processes, the reliability of counterparties, and complex organizational and legal conditions of functioning is growing.

This leads to special attention to the assessment of the financial condition of the enterprise as a dominant lever for identifying the weak and strong positions of the enterprise, its financial reserves.

Assessment of the financial condition should be reasoned and objective, since errors in conclusions lead to losses or underachievement of the desired level of profit.

Taking into account the variety of financial processes, the multitude of indicators that characterize the financial condition of the enterprise, the difference in the level of their marginal estimates, it is necessary to apply appropriate economic and mathematical methods and models.

They allow you to solve the problem of assessing the financial condition of the enterprise with minimal time and money costs.

At the same time, since the tasks of financial analysis require taking into account and processing powerful arrays of statistical and expert information, it is advisable to develop software tools that automate the process of determining the financial condition of the enterprise and reduce the likelihood of erroneous assessments.

Thanks to the works of domestic and foreign scientists, a large number of mathematical models have been built to solve problems of financial analysis.

However, the existing approaches do not allow to fully take into account the constantly changing composition and dimensionality of the set of evaluative parameters of the financial condition of the enterprise under the conditions of variability of internal and external environments, the specifics of the functioning of the enterprise in a particular industry under the influence of crisis phenomena.

This determines the relevance of the development of mathematical models and methods for assessing the financial condition of the enterprise and the corresponding software tools that automate them.

Purpose: is to conduct a review of the existing theoretical support for analysis and forecasting, and as a result, to conduct a complete analysis of the state and activities of an agricultural enterprise.

Object of research: development of a specialized software product for analyzing sales volumes of an agricultural enterprise.

Subject of research: the paper presents an overview of several methods for forecasting time series.

The results of forecasting the selected indicators using the autoregressive model, as well as such methods as MGVA, fuzzy MGWA are obtained.

The novelty of the conducted research lies in the fact that a comprehensive study of all aspects of financial activity allows to increase the efficiency of management of economic entities and reduce the negative impact of external and internal factors.

Methods: MGVA – method of group consideration of arguments; NMHWA is a fuzzy method of group consideration of arguments.

Expected result: analysis of the state and activities of the enterprise using a web application.

In the process of performing the study, a review of the existing theoretical support for analysis and forecasting was carried out, and on the basis of the results obtained, a complete analysis of the state and activities of the enterprise was carried out.

However, so far all these methods have not been sufficiently studied, they are based on a rather complex theoretical basis, and their conclusions cannot always be successfully applied in practice.

In this case, there is no clear standard for the use of this method, but in which it is necessary to look for new approaches.

Therefore, now there is a tendency to use not the "best" method in describing and predicting time series, but a set of methods and further comparison of results.

And the more diverse methods according to the principle of forecasting the complex has, the greater will be the probability that the natural pattern according to which the series is built will be determined.

The obtained forecast values should be used for operational planning and management of the enterprise.

One of the types of analysis was also considered - financial, which helps in the management of the enterprise.

The success of the analysis is determined by various factors. With a certain degree of conventionality, five basic principles can be recommended that it is advisable to keep in mind when carrying out the analysis.

A factor analysis is made, i.e. an assessment of the financial condition of the enterprise by calculating financial and economic indicators: indicators of profitability, liquidity, business activity, property status, financial security and others.

It has been established that the best model among those built is a fifth-order autoregressive model with the addition of purchasing factors and margins.

Several indicators were used to assess the quality of forecasts, which helps to increase the probability of choosing the best forecast. In particular, the Theil coefficient shows which models are in principle suitable for forecasting.

A software product was written that can be used at the enterprise.

The product is written in JavaScript (in the WebStorm environment) using the open React library to create user interfaces, and using: Redux, Redux-saga, Redux-Form, React Router.

The results of forecasting the selected indicators using an autoregressive model were analyzed.

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