

ABSTRACT

Thesis contains 105 p., 11 spreadsheets, 28 figures, 3 add. and 29 sources.

FORECAST, REGRESSION MODEL, MARKETING RESEARCH, SALES VOLUME, MARKETING, TIME SERIES, CRITERIA OF MODEL ADEQUACY.

The object of the study is application of statistical methods for forecasting in the field of marketing.

The purpose of the thesis is to analyze the existing methods of statistical simulation and forecasting, identify their advantages and disadvantages; to build the high-adequacy model of manufacturer sales volume dynamic in particular market segment, and compare the quality of forecasts, obtained on this basis with forecasts which projected by alternative models.

Existing expert and factor-based forecasting methods, used in marketing, were analyzed. During the implementation of the thesis, two versions of regression model of the processes was developed and the comparative analysis of the forecasts quality with the forecasts by single-layer GMDH model was conducted. In the course of the study it was established, that the developed models allows for the most accurate estimates of forecasts, and averaging allows them to be further improved.

For further research it is expedient to expand the functional of the developed software, by increasing the alternative models range and automating the data pre-processing cycle.