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CONTRIBUȚII LA PROMOVAREA METODELOR STATISTICO-MATEMATICE ÎN ACTIVITATEA SISTEMULUI COOPERAȚIEI DE CONSUM

*(Contributions to Promoting Statistical-Mathematical Methods in the Activity of the Consumer Cooperative System)*

Centrocoop, Computing and Data Processing Centre, 1972, 272 pages

The work is part of the ever increasing preoccupations for the improvement and modernization of the activity of data processing, at the level of all the branches of our national economy.

Through this study, the authors are making their contribution to promoting statistical-mathematical methods in the activity of the consumer cooperative system and besides, they put at the disposal of economists in all branches of activity useful knowledge for the use of information, regarded as main instruments of work in the management activity.

The work, in general, presents the most important economic-mathematical notions at the basis of statistical processings, of economic analysis and economic computation.

Thus, the study sets out from the presentation of the primary notions concerning the use of statistical data: sizes, indicators of variation, indicators of evolution and economic indices.

Further, the work presents the methods of adjustment and analysis of economic phenomena offering the possibility for outlining the essence and real tendency for the development of phenomena.

The indicators of characterizing the economic activity and social phenomena are presented in detail. The sphere of material production is also defined and the essential indicators are being outlined with the aid of which the branches of the national economy can be characterized: industry, constructions, agriculture, silviculture, transports, telecomunications and the circulation of goods.

As by definition, the activity of the consumer cooperative system is taking place in direct relation with the population, the authors introduce a series of notions of characterization linked with it.

A special chapter is devoted to the description of some of the mathematical methods with applications in economy. The basic notions are defined in the applications of mathematical methods in economy, such as: combinatory analysis, linear algebra, probabilities, distributions and, further, the use of mathematical methods in the economic field is presented.

The final part of the work presents a number of applications, in the form of examples, of some of the notions presented, with a view

to underlining the mecahnism of their utilization. The following applications are presented:

1. the calculation of the volume of sales with the aid of the regression curve;
2. the use of elasticity coefficients in the prognosis of sales in keeping with incomes;
3. the use of elasticity coefficient in laying out the sales plan on groups of goods (or marketing units);
4. the measuring of the seasonality of sales with the aid of seasonality indices;
5. the working out of the optimum variant of the plan of the goods stocks in retail trade, at a county economic enterprise;
6. the calculation of the rate of the stock and its transformation in a period of time for the stock to cover the sales (circulation speed and vice versa);
7. the establishment of the correlation existing between stocks (in hauling time) and the volume of goods sales with the aid of the correlation coefficient;
8. the optimization of goods distribution;
9. applications of the theory of graphs.

In conclusion of the work, the authors outline the fact that, in the form of example, they aimed at turning to account the possibilities offered by the notions dwelt on, about the modernization of the economic activity of the consumer cooperative organizations and enterprises.

Through its content, through the tackling and detailed presentation of the practical examples, the work succeeds in arresting the attention of specialists in economy and of the students of the respective faculties, being a very useful work in the very topical field of introduction of statistical-mathematical methods in economy.

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