THE ROLE OF MATHEMATICS IN ECONOMICS

Azimova Toyibakhan Elmurodjon's daughter
Mathematics Teacher at Kokon University

ANNOTATION

This article provides information on managing the economy and various methods of solving economic issues.

Key words: economy, modeling, excel, mechanism, statistics, component, set.

At the new stage of reforms based on the principles of economic liberalization and wide introduction of market mechanisms, it is necessary to reduce the role of the state in the economy and increase the effectiveness of the next work on expanding the participation of the private sector requires the development of a clear, transparent and result-oriented mechanism of economic management. At the same time, the tasks of improving the living standards and quality of the population in the regions, in particular, reducing poverty, increasing the competitiveness of all branches and sectors of the economy in many ways, and creating fundamental conditions for the development of entrepreneurship is directly related to the creation of new and stable jobs at the expense of detection and elimination requires the introduction of a modern and inclusive institutional system based on.

Spreadsheets are used in various areas of life, primarily in solving calculation and economic problems, including in the rapid re-development of problems that change the given ones quickly, for example, in solving large-scale problems, such as working with bank documentsis a powerful tool used.The first spreadsheet program was released by Software Arts in 1979 under the name Visicals (Visiblencalculators). this program was developed for the Apple II computer and in many ways it was found to be popular in the market. With the introduction of the IBM PS computer in 1981, spreadsheets for this type of computer began to be developed. new versions of visicals and Supercals appeared, together with the first application of Microsoft Multiplan, which became the shining star of the new generation of spreadsheets. The next step in the development of spreadsheets was the appearance of graphical modes that were used to more visually represent the results of calculations. 1983 LOTUS 1-2-3 packages were released and became more successful than expected.

But in 1997, Microsoft introduced Excel, which is still the most powerful program in its class. There is no doubt that Excel is one of the most popular programs. this program not only allows you to process and save arbitrary information (texts, numbers, dates, etc.), but also allows you to decorate, display and print the result of your work. you can use the editing tools in WinWord.At first, it is not difficult to master the mass capabilities of Excel, but due to the complexity of the program and the wide range of capabilities, familiarization with them may take a long time, therefore, it is possible to see its new capabilities in the process of work. Spreadsheets are part of lifeIt is a very convenient tool used in solving accounting and economic problems in various fields, including rapid re-development of pre-prepared data or solving wide-ranging problems such as working with numerical reports.

It is the most advanced direction used in the in-depth economic analysis of the activities of production enterprises, firms and their divisions in the conditions of the market economy, and the wide use of mathematical methods. the use of mathematical methods in economic analysis shortens the period of analysis, fully covers the factors affecting the results of commercial activity, replaces approximate and simple calculations with accurate calculations, poses new, multi-dimensional problems of analysis andallows solving problems that cannot be solved in practice with manual labor and traditional methods. therefore, it creates an opportunity for the manager to check his ideas and desires with the help of mathematical models, develop and check several options of the business plan being developed, and choose the best one among them.

The use of mathematical methods in the economic analysis of enterprises requires the following:
- a systematic approach to the study of the economy of the enterprise, taking into account all the interactions related to its various activities. in such conditions, the analysis itself gathers and shows systemic features in a cybernetic sense;
- creation of a complex of economic-mathematical models representing the quantitative characteristics of economic processes and issues to be solved with the help of economic analysis;
- improvement of the economic information system related to enterprise activity;
- availability of computer equipment for collecting, storing, processing and transmitting economic information for the purpose of economic analysis;
- creation of a special team of analysts, consisting of production-related economists, mathematical modeling, mathematical accountants, programmer-operators

The most widely used mathematical statistical methods in economic analysis are pair correlation analysis and multifactor correlation analysis. these methods have been thoroughly studied both theoretically and practically, and are comprehensively covered in the economic literature. To study one-dimensional statistical sets, variational series, distribution laws, and selection methods are used. For the study of multidimensional statistical collections, the types of correlation, regression, dispersion, covariance, spectral, component, and factor analyzes studied in the course of theoretical statistics are used.

the most convenient way of expressing economic information for analysis is to express it in the form of a table. The advantage of matrix models is that with their help, complete information about the economic process or object being analyzed is fully expressed before the eyes of the researcher. which allows you to make clear, effective decisions in the conditions of a complex market economy.

The method of mathematical programming is a branch of modern applied mathematics that is rapidly developing in accordance with the requirements of the economy. Mathematical programming methods are the main tool for solving optimization problems of production and economic activities. According to their content, these methods are tools for calculating optimal planning. their value in the preparation of the business plan of the enterprise and in the economic analysis of its implementation is that it provides an opportunity to justify and evaluate the seriousness of the planned tasks, a group of equipment, raw materials, materials that limit productiontypes, evaluates the scarcity of production factors.at the same time, it gives an opportunity to choose the most optimal one from among all the created options

In conclusion, it should be said that many economic-mathematical methods are widely used in the fields of economy such as production, commerce and business activities. The use of one or another economic-mathematical method in the economic analysis of economic processesrelies on a scientifically based description of economic-mathematical modeling methodology and analysis methods and issues.

REFERENCES

1.O'zbekiston Respublikasi Prezidentining 2020-yil 26-martdagi PF-5975-son Farmoni

2.G'ulomov S.S. va boshqalar. Axborot tizimlari va texnologiyalari: Oliy o'quv yurti talabalari uchun darslik /Akademik S.S. G'ulomovning umumiy tahriri ostida. – T.: «Sharq», 2000.

3. Nasretdinova Sh. Excel 7.0 jadval hisoblagichlari. Moliya va bank akademiyasi nashriyoti, T., "Moliya": 2000 y.

4. Ф.Закирова и др. Информатика и информационные технологии. Т.: Изд-во «Aloqachi», 2007, 176 стр.

5.Курицкий Б.Я. Поиск оптимальных решений средствами Excel. "Санкт-Перербург", 1997г

6. Sh. Abdurahmanov, S. Yoldoshev, & Egamova. (2022). WHEN SAYING "VISUAL IMAGE" AND "AXONOMETRY" ON HOW IMAGES ARE UNDERSTOOD. Galaxy International Interdisciplinary Research Journal, 10(11), 1056–1062. Retrieved from https://giirj.com/index.php/giirj/article/view/3962

7. Sh. Abdurahmanov, S. Rahmatullaev, & S. Yoldoshev. (2022). OPTICAL THEORY OF AXONOMETRIES, USED IN THE HISTORY OF CENTRAL ASIAN PAINTING. Galaxy International Interdisciplinary Research Journal, 10(11), 445–450. Retrieved from https://www.giirj.com/index.php/giirj/article/view/4066