Materials of Conferences

DECISION SUPPORT SYSTEM IN ESTIMATION OF THE ECONOMIC EFFICIENCY FOR THE CHEMICAL INDUSTRY

Frolova T.A., Tulyakov D.S., Frolov S.V.

Tambov State Technical University, Tambov, e-mail: frolova@mail.gaps.tstu.ru

In a modern market economy, leaderships of enterprises of multipurpose specialty chemical production choose which product needs to make in order to maximize profit.

For this purpose we have proposed a decision support system in estimation of the economic efficiency for chemical industry.

Decision Support System (DSS) takes input data for the production of various projects. These data are processed for use in calculations of estimation of the economic efficiency of projects and the output of DSS obtains a set of criteria by which to estimate the attractiveness of investment projects (Figure).

This DSS is required at the initial stage of the decision to launch production.
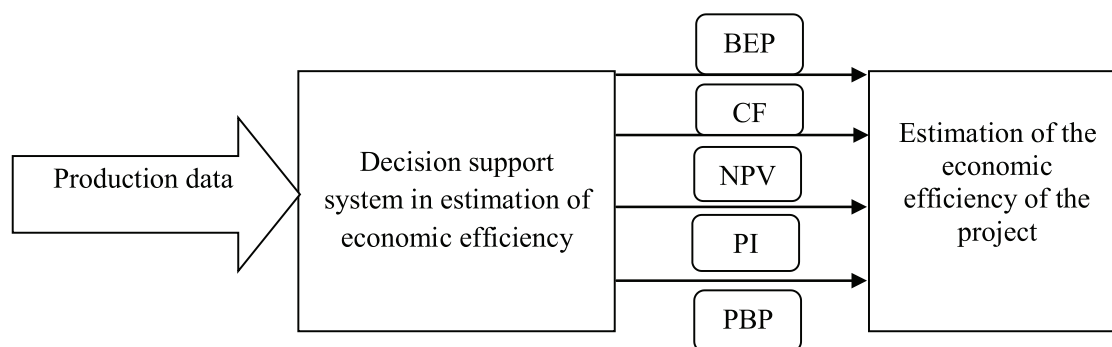
DSS (BEP – break-even point, CF – Cash Flow, NPV – Net Present Value, PI – Profitability Index, PBP – Pay-Back Period)

A user of this system contributes to the database information on the production. Not all data might have the exact values, if such data are called uncertain. There are several approaches to the disclosure of uncertainties. We propose an approach in which the information about the uncertainty of a parameter is specified as interval numbers. Further information from the database is used for lumpsum costs, current charges and calculation efficiency criteria. Information is displayed to a user on projects and he decides on further consideration of a production.

Thus, the implementation of such decision support system will help the decision maker in evaluating the economic efficiency of a production. The result of using such a DSS can become more effective fiscal policy and the distribution of cash flows.

INFORMATIONAL AND ANALYTICAL SUPPORT BUSINESS PLANNING TASKS

Medvedev A.V.

Moscow State University of Economics, Statistics and Informatics, Moscow, e-mail: alexm_62@mail.ru

In today's information society development relevance of decision support systems of business planning, oriented on business analyst, entrepreneur, businessman, is no doubt. Important properties of the informational analytical base business planning must be, on the one hand, the minimal set of these characteristics, and on the other, it is sufficient to receive income and expenditure flows of financial and economic activities in accordance with the specified algorithms, conceptually relevant accepted accounting rules in the country for these streams. Below are given the features of financial and economic activity, as well as the internal and external economic environment of investment project.

1. The characteristics of the basic production assets (quantity, value, performance and service life