The article reveals the essence of bankruptcy. An analysis of methods of diagnosing the likelihood of bankruptcy, in particular, expert methods, economic and mathematical methods, artificial intelligence systems, and methods for assessing the financial condition, is done. In the article, the systematization of methods and approaches for the diagnosis of bankruptcy probability is proposed.

The article proposes three main approaches to the systematization and classification of existing methods of diagnosing the probability of bankruptcy:

1) statistical methods;
2) artificial intelligence system;
3) theoretical methods.

Statistical methods are most commonly used to assess the probability of bankruptcy of companies. The features of these models are focusing on possible signs of bankruptcy and using classical statistical modelling procedures.

The features of artificial intelligence methods are focusing on the symptoms of possible bankruptcy, multidimensionality, and dependence on technology.

The third approach includes bankruptcy theoretical diagnostic techniques. The features of these models are only the multidimensionality, the use of statistical methods with the subsequent additional argument, focusing on quality causes of bankruptcy.

The study shows that in the modern economic literature, there are enough methods, models of diagnostic of crisis and the threat of bankruptcy entities.

There are many models used in practice but none of these models give absolute results because almost all of the above models of bankruptcy diagnostics are primarily designed for developed countries and do not correspond to the realities of the Ukrainian economy.

For a more reasoned forecast, it is appropriate to use both integrated several methods of diagnosing the probability of bankruptcy, which will significantly increase the degree of probability of the results.