THE INNOVATIVE POTENTIAL OF AGRO-PROCESSING ENTERPRISES IN THE CONTEXT OF RESOURCE CONSERVATION AND CRISIS MANAGEMENT

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Abstract

Under conditions of fierce competition, financial instability, and limited resources, the functioning of agro-processing enterprises is accompanied by various crises, which can result in financial insolvency or bankruptcy of these entities. In this situation, the use of innovations in processing that provides a positive effect on the implementation of crisis management measures is the basis for the formation of competitive strategic prospects of agricultural enterprises. The probability of success in avoiding crises directly depends on the level of innovation activity of a particular enterprise, which defines the relevance of determining the level of product innovation potential. However, in many cases, modern economic reality requires decision-making in conditions of uncertainty that makes it impossible to correctly apply deterministic models. Therefore, in crisis management, the use of fuzzy logic gives more reliable results than those obtained using traditional methods. For this reason, the aim of the research is to evaluate innovative products on the basis of "quality-price" criteria with vague assessments of criteria relevance.

The article describes the justification of using the apparatus of fuzzy set theory in solving problems of crisis management in conditions of uncertainty based on the possibility of formalizing more flexible relationships between parameters that is more consistent with the nature of real phenomena and allows to make reasonable decisions by generalizing and analyzing qualitative values. The authors propose a method of assessing the prospects of any innovative product, based on the use of the fuzzy-multiple approach.

Using fuzzy numbers and soft calculations created the possibility of making a multi-criteria choice of an alternative product and taking into account the uncertainty factor due to incomplete relevance between a prototype and an innovative product, as well as the fact that market conditions for the prototype relate to the past.

The proposed method of assessing the innovative potential of products can be used in the practice of enterprises in the process of solving problems of crisis management, characterized by a high degree of non-static uncertainty.

Key words: *Innovation, Product, Crisis management, Uncertainty, Fuzzy-multiple approach.*