

# APPLICATION OF FUZZY DECISIONAL MAKING METHOD TO THE EVALUATION OF POSITION OCCUPIED BY EACH STRUCTURAL SUBUNIT OF NATIONAL HARD COAL COMPANY PETROSANI BASED ON CRITERIA OF ECONOMIC VIABILITY

CSIMINGA Diana Cornelia, MANGU Sorin Iuliu  
University of Petrosani,  
[diana\\_csiminga@yahoo.com](mailto:diana_csiminga@yahoo.com), [mangusorin@yahoo.com](mailto:mangusorin@yahoo.com)

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In present economical and financial situation and present time, when the accent must be put on increasing the economical performances and efficiency of economical agents, the National Hard Coal Company has as main objective to evaluate the performances of each unit. The viability of the National Hard Coal Company in Petrosani is influenced by the amount of the viabilities of structural components reported to the value of its global income.

The yearly evaluation at the structural units' level and of National Hard Coal Company based on the technical and economical indicators allow characterizing these units, being able to offer an ensemble image regarding the future dimension and evolution of the mining activity in Jiu Valley. This paper tries to establish the position of each mine in Jiu Valley, starting with the estimations and tendencies of viability economical criteria during the period 2008-2011, making appeal to fuzzy decisions. So, we shall use as example the classification of the production units depending on the viability economical criteria that consists in appreciating the productivity of each mining units, of unitary costs and state help.

In this paper, a fuzzy decision making method is proposed which is based on the fuzzy set theory and the hierarchical structure analysis. The method employs two key concepts: linguistic variables and fuzzy numbers. The linguistic variables and fuzzy numbers are used to represent the decision-maker's subjective assessments for the decision criteria and the decision alternatives versus the decision criteria. The fuzzy mean operator is used to aggregate the decision-maker's subjective assessments and the total integral value method is used to rank the decision alternatives.

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