BANK BRANCH LOCATION SELECTION BY FUZZY AHP

Cinar Nihan

Yildiz Technical University, Department of Mathematical Engineering, Davutpasa Kampus, 34210,Turkey,+90 212 383 46 14, E-mail : ntirmik@yildiz.edu.tr

Location selection is one of the most important multi-criteria decision problem which requires to consider several criteria and has a strategic importance for many companies. The general procedure for making location decisions consists of the following steps: Decide on the criteria that will be used to evaluate location alternatives, select the criteria that are important, evaluate location alternatives and select the best alternative [1]. The object of this study is to help a bank in Turkey selecting the most appropriate location among six alternatives in the South-Eastern of Turkey. The model is consisted of five main criteria which are demographic, socioeconomic, sectoral employment, banking and trade potential and twenty-one sub-criteria.

The conventional methods for location selection are inadequate for dealing with the imprecise or vague nature of linguistic assessment. To overcome this difficulty, fuzzy multicriteria decision-making methods are proposed. Because of the multi-criteria structure of the problem and the fuzziness in the comparisons of the criteria and the alternatives, Chang's [2] extent analysis method on fuzzy AHP is used.

Literature

- 1. Stevenson WJ: Homewood, Productions/Operations Management,4th Edition,1993
- 2. *Chang,D.Y*, Applications of the extent analysis method on fuzzy AHP,European Journal of Operational Research, 95,1996,649-655