

Fuzzy Linguistic Facilities Location Models

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Abstract

Facilities location refers to placement of a planned facility with respect to other facilities. Two kinds of factors - objective and subjective - should be considered in deciding suitable location of the facilities. Subjective factors provide qualitative information. What has been termed a qualitative approach to facilities location problem is discussed. Facilities location decisions are frequently subjective. Subjective factors play an important role in determining the site location.

Fuzzy linguistic variable concepts are used to construct models for subjective factors. Fuzzy linguistic approach provides an approximate and effective means of describing the behavior of complex or ill-defined systems.

This paper discusses the use of fuzzy linguistic variables to be quantified subjective factors by using fuzzy set methodologies. An example is given to illustrate the proposed approach by using two different methods - *weighted average and weighted median*.