

Abstract

Nowadays, urban- service providers meet the citizens' various needs and are among the most important means that attempt to satisfy the welfare of urban communities. In order to be efficient and effective enough, such centers are supposed to be equipped with features like proper distribution in the city and appropriate coverage of the public. Hypermarkets are among the urban service centers that play a significant role in meeting the citizens' daily needs. Due to their multi-capabilities, these stores are widely accepted and used by people, they can have a crucial role in providing citizens with basic urban services. In this research, it is attempted to analyze the current distribution status of the hypermarkets and positioning of new hypermarkets in the city of Zabol. The research method which is descriptive-analytic is based on library and field studies. The findings obtained using the ArcGIS software indicate the likelihood of 5 zones located in different parts of the city. Subsequently, using multi-objective metaheuristic algorithm and geographic location of 40 districts of Zabol, the selected zones were reduced to cases in the region 2 and the boundaries 2 and 3. The results also show that the combination of Arc GIS software and metaheuristic algorithms can be regarded as an effective tool for greater optimization of the selected areas.

Key words: Hypermarket, Positioning, Zabol, Metaheuristic Algorithm, Arc GIS



University of Zabol
Graduate school
Faculty of Literature and human sciences

Department of Geography and urban planning

**The Thesis Submitted for the Degree of M.Sc
(in the field of Geography and urban planning Science)**

Planning and Optimal Site Location of Hypermarket in Zabol City with Emphasis on Multi-objective Algorithm and GIS

Supervisor:
Dr. A. Kiani

Advisor:
Dr. Gh. Khammar

By:
Fariba Jafarzadeh

summer 2018