Abstract

Outliers are data that have different characteristics from the data in general or to the environment. In this outlier there is knowledge or information is often very usefull. One outlier problem tha arise from data mining is the spatial outlier. Spatial outliers are the spatial object referenced where its non-spatial attributes are significanly different from the objects around it. There are many techniques for detecting spatial outliers. Like itterative approach, morran scatterplot, etc.. But, some of these techniques do not consider the affect of spatial relationship within the envvironment. Therefore, the author propose a avgdiff (Average Difference) techniques which combines the non-spatial attribute and spatial attributeof the object. Thus the affect of the spatial relationships between object and its neighboors would be important and must be considered. Avgdiff can be used for detecting spatial outliers well in several test scenarios based on the parameter k, the weight factor of distance, the weight factor of population and evaluation parameters detection rate and false-positive rate.

Keywords: *outlier, spatial outlier,* avgdiff, *weight* .