

# Applying Data Mining Techniques in CRM

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## Abstract

abstract - Customer relationship management (CRM) is a very important factor in enhancing the organization competitiveness. In this paper, Data mining (DM) techniques are used to improve customer services in a radiology centers. Clustering customers is needed to find unsatisfied need, promote services packages and create new service packages. The proposed system radiology data mining system (RDMS) consists of three components; preprocessing, clustering and post processing. The data collected is for a period of four month for 6700 transaction. Three data sets are constructed from the original data set by dividing the whole data into 90%, 85% and 80% for training and 10%, 15% and 20% for testing respectively. Three K-means model are used with  $k=10, 15$  and  $18$  cluster and each data set is used to calibrate and test the model for a total of nine ones. It is found that the best model is the one with 15 clusters. The clustering results are represented to a medical specialist who found that some results are reasonable and others go along with the center type and its policy.

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