

عنوان مقاله:

Extracting Customer Behavior Pattern in a Telecom Company Using Temporal Fuzzy Clustering and Data Mining

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نویسندگان:

محمد فتحیان - *Prof. of System Engineering, Iran University of Science and Technology, Tehran, Iran*

احسان اژدری - *MSc. Student in Industrial Engineering, Iran University of Science and Technology, Tehran, Iran*

خلاصه مقاله:

One of the most important issues in Customer Relationship Management is customer segmentation and product offer based on their needs. In practice, Customer's behavior will change over the time by changes in technology, increase in the number of new customers and new competitors, and product variety. Traditional segmentation models that are static over time cannot predict these changes in customer's behavior and ignore them. This challenge is especially critical in Telecommunication with high churn rates. In this research, we have used temporal fuzzy clustering to detect significant changes in customers' behavior for a telecom company during a ۱۰-month period. The aim of this study is to find factors that affect structural and gradual changes in clustering model. In addition, we have suggested a method based on Frechet distance to extract similar patterns in customer's usage behavior. Provided that combining the temporal clustering with trajectory analysis is an effective way to recognize customers' behavior among the clusters, the results showed that there are seven distinct customer behavior patterns two of which lead to the customer drop or churn. These patterns can be used to reduce the risk and costs of customers churn and to design optimum services

کلمات کلیدی:

customer behavior, Data Mining, Dynamic Clustering, Fuzzy clustering, Trajectory Analysis

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