Abstract

The FP-Growth and Fuzzy C-Covering algorithms are known to correct the Apriori weakness. FP-Growth uses the FP-Tree technique which is famous for the divide and conquer methods and does not generate itemset candidate generation. Fuzzy C-Covering uses the max item threshold technique to limit the execution of transactions. This algorithm requires a large memory and long execution time because of repeated data scans, since it is implemented to FP-Tree. The sales transaction data for IKK cooperative in 2018 amounted to 51,384 data. Data is used to identify items that might be purchased together with other items. Currently cooperatives do not have a data processing system for analysis of consumer buying patterns. Research is conducted to find association rules by implementing FP-Growth and Fuzzy C-Covering algorithms based on FP-Tree and to measure performance between algorithms based on execution time, memory usage, and the accuracy of association rules. Based on the test results, Fuzzy c-Covering based on FP-Tree uses less memory because the results of the tree formation are not stored and the execution time is longer because it is defined in the fuzzy set. FP-Growth has higher accuracy with the resulting association rules is risoles rahmat, tahu
Implementation of FP-Growth and Fuzzy C-Covering Algorithm based on FP-Tree for Analysis of Consumer Purchasing Behavior

isi emly, pastel bihun susi with support 0.023%, and confidence 100%. Whereas Fuzzy c-Covering based on FP-Tree generates aqua 600ml, nasi telor balado siska, tahu bakso siska with support 0.05%, and confidence 21%.

References


Index Terms

Computer Science
Algorithms

Keywords
Data Mining, Association Rule Mining, FP-Growth, Fuzzy c-Covering, FP-Tree.