

Abstract

Many business enterprises accumulate large quantities of data from day-to-day operation. For example, huge amount of customer purchased data are collected daily at check count counter in supermarket. Retailers are interested in analyzing these data to find customer purchased behavior. This valuable information is very important for supporting promotion strategy, inventory management, and customer relationship management.

There is methodology for discovering relationship among large data set which is known as association analysis for market basket data. Association analysis will yield association rule which indicate customer purchased behavior.

Although some algorithms can find association rule, they can be inefficient in computational time. The aim of this paper is to present the analysis of implementing apriori-TID algorithm for mining association rule in supermarket. There will be comparison of apriori algorithm as pioneer of mining association rule and apriori-TID algorithm as developed apriori algorithm on performance of computational time. The observation shows that apriori-TID algorithm implementation will enhance the efficiency of computational time compare to apriori algorithm thus this Apriori-TID algorithm is suitable for extracting association rule in large dataset as supermarket transaction data.

Keywords: association analysis, market basket data, association rule, apriori algorithm, apriori-TID algorithm.