

ABSTRACT

MARKET BASKET ANALYSIS WITH APRIORI ALGORITHM ON CONVENIENCE STORE TRANSACTION DATA

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The rapid growth of the retail business has an impact on increasing the economic growth of the community. The retail business has high profit potential in areas that have a large population such as Indonesia. A retail business that is popular among the public is a modern market retail business or convenience store. This growth gives a tendency for supermarkets to compete. Management needs to understand the purchase behavior made by customers. This action is useful to know the products - products that are popularly purchased by customers. Customer behavior can be analyzed through a method called market basket analysis, this method has a focus on finding patterns - customer purchase patterns. There are several popular algorithms in applying market basket analysis, one of which is the apriori algorithm. This algorithm was chosen because of its popularity among researchers and is the 10 best algorithm and has a big impact on the world of data mining research. The application of market basket analysis with an apriori algorithm gets the results of the 59 best rules and has been validated to meet the requirements of the lift ratio value, with the minimum values of support and confidence respectively are 0.001 and 0.01 in the transaction data that has been obtained online. From these results can be drawn the conclusion that the a priori algorithm has a great influence on the success of market basket analysis, as well as the resulting rules can be used as recommendations for the marketing strategy of convenience stores.

Keyword : transaction data, market basket analysis, apriori algorithm, flask