

ABSTRACT

The information technology develops rapidly beyond people's thought. There are easy things that human kinds feel because of the development of information technology. One of the developing fields accordance with the development of information technology because the huge needs of adding value from big scale data base that are accumulated very much is data mining. It can be defined as the set of processes to get the adding value of science that we haven't known manually all these times from a set of data . Supported by enrichment and variety of sciences (artificial intelligence, database, statistics, matematics model, image processing, etc), it can make the application of data mining get wide. One of the data mining application is to selection the product in the supermarket so that it can maximum profit for the owner.

In the final paper, it can be implementated and anlyzed the searching intergrity of frequent itemset from association rule with a model of integer programming for product selection (The Generalized PROFSET) in retail supermarlet data. The generalized PROFSET model is the model combining between criteria or quality of domain knowledge and quality of retail supermarket data to determine product set that can yield the profit of maximum cross-selling in a large basket.

The aim of this system is to help retailers in respect of optimalizing the decision of marketing mix retail from adoption of association rule. Hopely, with this system the retailers can define the category constraints easly from the management principle in making the marketing mix decision

Keyword : data mining, association rule, frequent itemset, generalized PROFSET model