

Independent Study Title	Applying Data Mining for Service in Library Case Study Thammasat University Library
Author	Dulyarat Gronsang
Major/Faculty	Technology Management, College of Innovation Thammasat University
Advisor	Dr. Kamol Keatruangkamala
Academic Year	2552

### Abstract

This independent study addressed the applying data mining for service in library through thammasat university library. As numerous resources in library are not fully utilized, it is necessary to discover the association rules and clusters from circulation data. This increases the potential of library to use existing resources more efficiently.

This research was conducted using experimental research to discover the patterns and knowledge that are hidden in the circulation data from january,2009 to june,2009. Principal of data mining techniques are used to analyze and discover with CRISP-DM by association algorithm and clustering algorithm.

Considering the relations between borrowed books and library members that borrow those books with association algorithm, we discover 3 association rules that have confidences more than 80% and librarians are interested. The results can be used for the library to support a decision in arranging bookshelf. Clustering the borrowers on borrower's characteristics and section of the borrowed books with clustering algorithm, we can divide borrowers into 4 clusters. The results can be used for the library to improve the recommended book service. Finally, we hope that the result of independent study can be a guideline to improve library services more efficiently.