## **Abstract**

With the abundant availability of data from various sources, the discovery of useful knowledge from data bases can be utilized using data mining techniques. One technique of data mining is association rule mining method which is useful for finding association rules in databases. Excavation association rules among the huge numbers of records that can assist decision-making process.

For database transactions, particularly self-service transaction data processing can be found in the rules of the association or correlation relationships among data items of each transaction that contains a collection of items activated at any given time. By developing a fuzzy calendar to help build the desired time interval get correlation between items from a database transaction that is activated at a certain time.

This study uses Fuzzy Temporal Association Rules on supermarket transactions to generate association rules. The test results are expected to be used to estimate the additional inventory.

Keyword: Data Mining, Fuzzy Calendar, Association Rules..