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**ABSTRACT**

Market basket analysis a data mining technique is the method to find the associations between the items / item sets and based on those associations we can analyze the consumer behavior. In this research we have presented the variability of time, because with the change in time the habits or behavior of the customer also changes. For example, people wear warm clothes in winter and light clothes in summer. Similarly, customers purchase behavior also changes with the change in time. We study the problem of discovering association rules that display regular cyclic variation over time. This problem will allow us to access the changing trends in the purchase behavior of customers in a retail market, and we will be able to analyze the results which will display the changing trends of the association rules. In this research we will study the interaction between association rules and time. We worked on transactional data of a Belgian retail company and analyzed the results which will help the company to build up time period specific marketing strategies, promotional strategies, etc. to increase the profit of their company.