

## **ABSTRACT**

# **IMPLEMENTATION OF ASSOCIATION METHODS FOR RETAIL PRODUCT PLACEMENT ANALYSIS**

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*Competition is something that is often found in the business world. This should be one of the focuses for entrepreneurs to choose new ways to innovate. Modern stores are stores with self-service systems that sell various types of goods in retail. Galinda Jaya is one example of a retail product store that has large and very large data, therefore it must utilize and produce information that will be used as decision support to make business solutions in the field of information technology. This study uses data processing and data grouping using the association method with yahoo a priori. The a priori algorithm uses prior knowledge of an itemset with frequent occurrences or also known as frequent itemset. A priori processing was carried out with RapidMiner on 33,676 data transactions. The a priori process was carried out in 3 simulations, namely simulation 1 product category, simulation 2.1 namely snack, and simulation 2.2 daily equipment. The a priori algorithm calculation is carried out with the support equation with a minimum value of 0.1 and confidence with a minimum value of 0.3 and the search for existing data association rules must have a superset of at least 2 (two). Some of the data processing carried out are data selection, data pre-processing, and transformation. The results obtained are that the product category simulation data, snack simulation, and daily equipment simulation produce the highest support value sequentially of 0.44 on snack items, 0.102 on wafer and snack items, and 0.529 on mask items and simulation data produces rules. snack association, namely wafer → snack with a confidence value of 0.355, which means 35.5% of transactions succeeded in selling wafers with snacks. Based on the results of the transactions that were successfully sold, it can be found that wafer and snack items are products that are often purchased by consumers.*

*Keywords: Apriori, Association, Retail Products, Data Mining, Galinda Jaya*